

Service Manual

**FM/AM/FM STEREO RADIO WITH CASSETTE
PLAYER/RECORDER AND RECORD CHANGER**

**Compact Stereo
SE-2657**



Simulated Wood Cabinet

Specifications

AMPLIFIER SECTION

Power Output	7W per channel (C.P.O.)
Power Band Width.....	100 Hz ~ 20 kHz (with no more than 5% total harmonic distortion)
Input Sensitivity and Impedance.....	AUX 200 mV, 50k ohm
REC OUT Voltage and Impedance.....	150 mV, 50k ohm
Tone Controls:	
Bass.....	± 10 dB at 100 Hz
Treble.....	± 10 dB at 10 kHz
Loudness	+ 8 dB at 100 kHz + 3 dB at 10 kHz

FM TUNER SECTION

Frequency Range.....	88 ~ 108 MHz
Intermediate Frequency	10.7 MHz
Sensitivity	4 μ V (S/N 30 dB, Mod. 30%)
Harmonic Distortion:	
MONO	0.5% (at 1 kHz, 60 dB, 30%)
STEREO	1% (at 1 kHz, 60 dB, 30%)
Signal to Noise Ratio	60 dB (at 1 kHz, 60 dB, 30%)
Stereo Separation.....	35 dB (at 1 kHz, 60 dB, 30%)
Antenna	300 ohm balanced

AM TUNER SECTION

Frequency Range.....	525 ~ 1605 kHz
Intermediate Frequency	455 kHz
Sensitivity	100 μ V/m for 50 mW

RECORD PLAYER SECTION

Type.....	Automatic Record Changer BSR C-141R1-A-6-ZC4285/517
Turntable.....	28 cm (11")

Turntable Speed.....	33-1/3, 45 and 78 RPM, 3-speed
Phonomotor	4-Pole Induction
Cartridge	Ceramic, EPS31STSD
Stylus	Diamond, EPC82SMBD
Stylus Pressure	2 ~ 5g
Frequency Response	20 Hz ~ 20 kHz

SPEAKER SECTION (SB-3057)

Type.....	6-1/2 (15 cm) Woofer, and 2" (5 cm) Tweeter
Impedance.....	8 ohms

POWER SUPPLY	AC 100 ~ 115V, 115 ~ 130V, 200 ~ 225V, 225 ~ 250V, 50/60 Hz
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POWER CONSUMPTION	85W
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DIMENSIONS (W × H × D)

Center Unit.....	556 × 220 × 424 mm (21-7/8") × (8-5/8") × (16-11/16")
Speaker System	290 × 494 × 216 mm (11-7/16") × (19-7/16") × (8-1/2")

WEIGHT

Center Unit.....	12.8 kg (28-1/2 lbs.)
Speaker System	5.5 kg (12 lbs. 2 oz.) each

CASSETTE PLAYER/RECORDER SECTION

Deck System.....	Auto-Stop Cassette
Recording System.....	AC Bias 52 kHz
Erasing System.....	AC Erase 52 kHz
Tape Speed	4.75 cm/sec. (1-7/8 i.p.s.)
Frequency Response	40 Hz ~ 12 kHz (Normal), -3 dB 40 Hz ~ 16 kHz (CrO ₂), -3 dB
Wow and Flutter	0.2% (WRMS)

* Specifications are subject to change without notice for further improvement.

Panasonic®

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DISASSEMBLY INSTRUCTIONS

■ To Remove Record Changer

(Refer to Figs. 1, 2-a ~ 2-e and 4)

1. Remove two (2) rear board mounting screws Nos. (1) ~ (2) as shown in Fig. 3.
2. Loosen the changer transit screws by turning them fully clockwise.
3. Turn retaining clip of changer transit screws, as shown in Fig. 1.
4. Lift record changer slightly in back, unplug two pin plugs from changer socket and molex plug from molex connector. And remove changer by lifting it slightly back and sliding it toward rear of cabinet. (Refer to Fig. 2)
5. To reassemble, reverse above procedure.

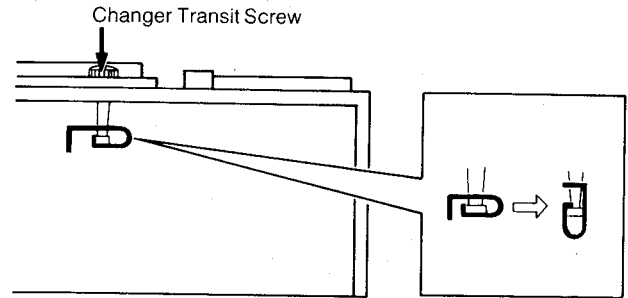


FIG. 1

■ To Replace Components

1. Remove record changer. (Refer to above instructions.)
2. Remove four (4) cabinet mounting screws Nos. (8) ~ (12), as shown in Fig. 3. Remove cabinet by sliding it toward rear. Remove two (2) cassette panel mounting screws Nos. (20) ~ (21), as shown in Fig. 3.
3. Remove five (5) bottom board mounting screws Nos. (3) ~ (7), as shown in Fig. 3. And four (4) cabinet mounting screws Nos. (8) ~ (11), as shown in Fig. 3.
4. To reassemble, reverse above procedure.

■ To Remove Escutcheon from Chassis

1. Refer to instructions 1 and 2 above.
2. Remove eight (8) knobs from front panel.
3. Remove three (3) escutcheon mounting screws Nos. (12) ~ (14), as shown in Fig. 3.
4. Remove rubber cushion with lamps from escutcheon.
5. To reassemble, reverse above procedure.

Remarks:

When removing cabinet from chassis, be careful not to break the AM antenna lead wires.

■ To Remove Cassette Deck

1. Remove record changer, bottom board and cabinet.
3. Remove four (4) cassette deck mounting screws Nos. (16) ~ (19), as shown in Fig. 3.

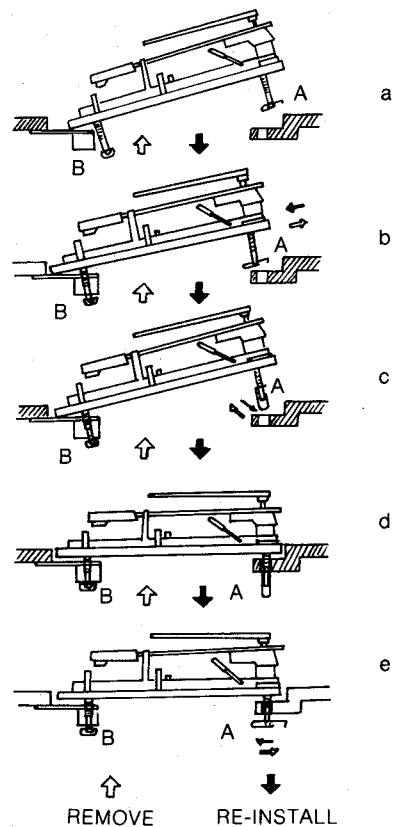


FIG. 2-a ~ e

LOCATION OF PARTS

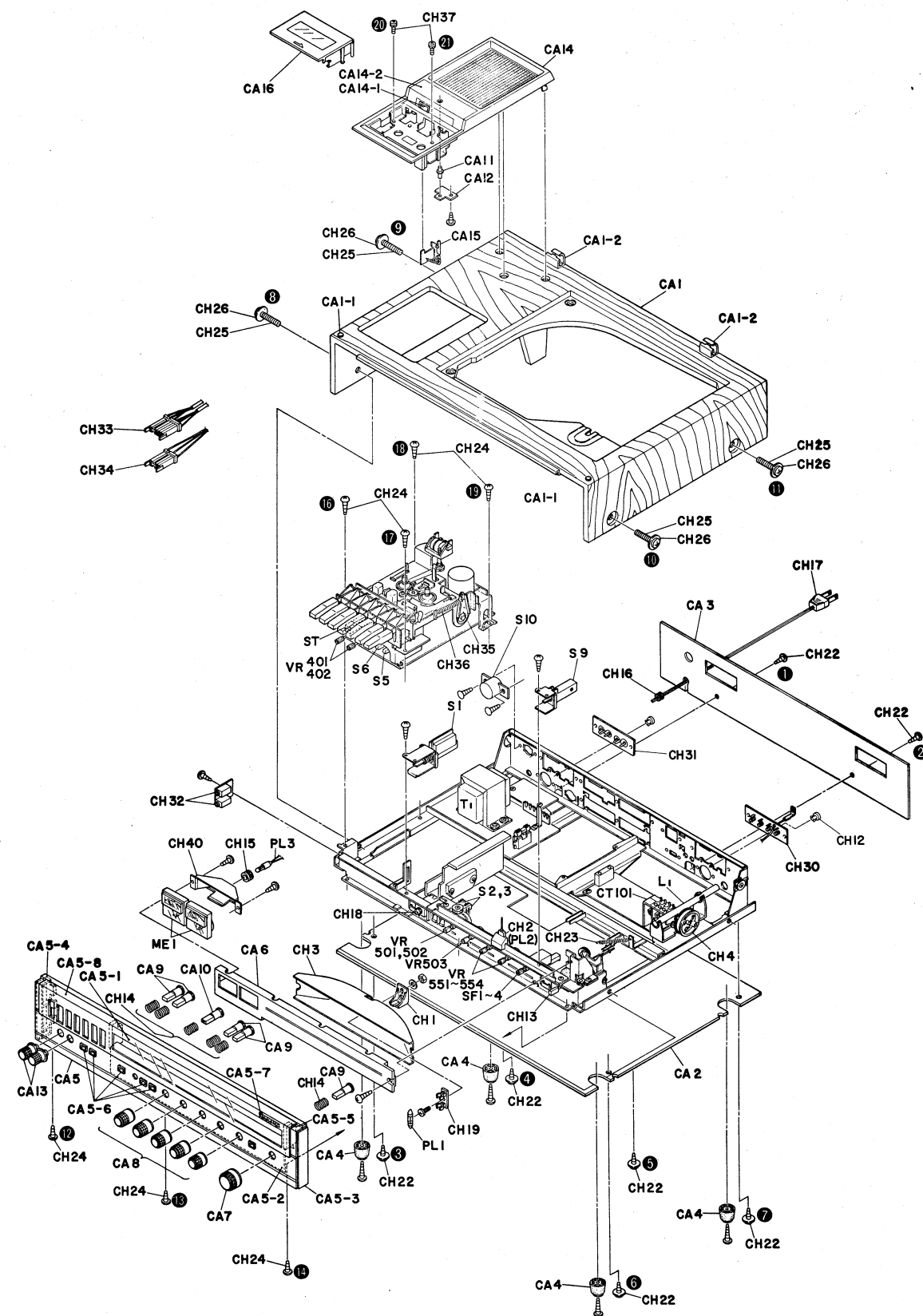


FIG. 3

3

SE-2657

EXPLODED VIEW OF CASSETTE PLAYER/RECORDER

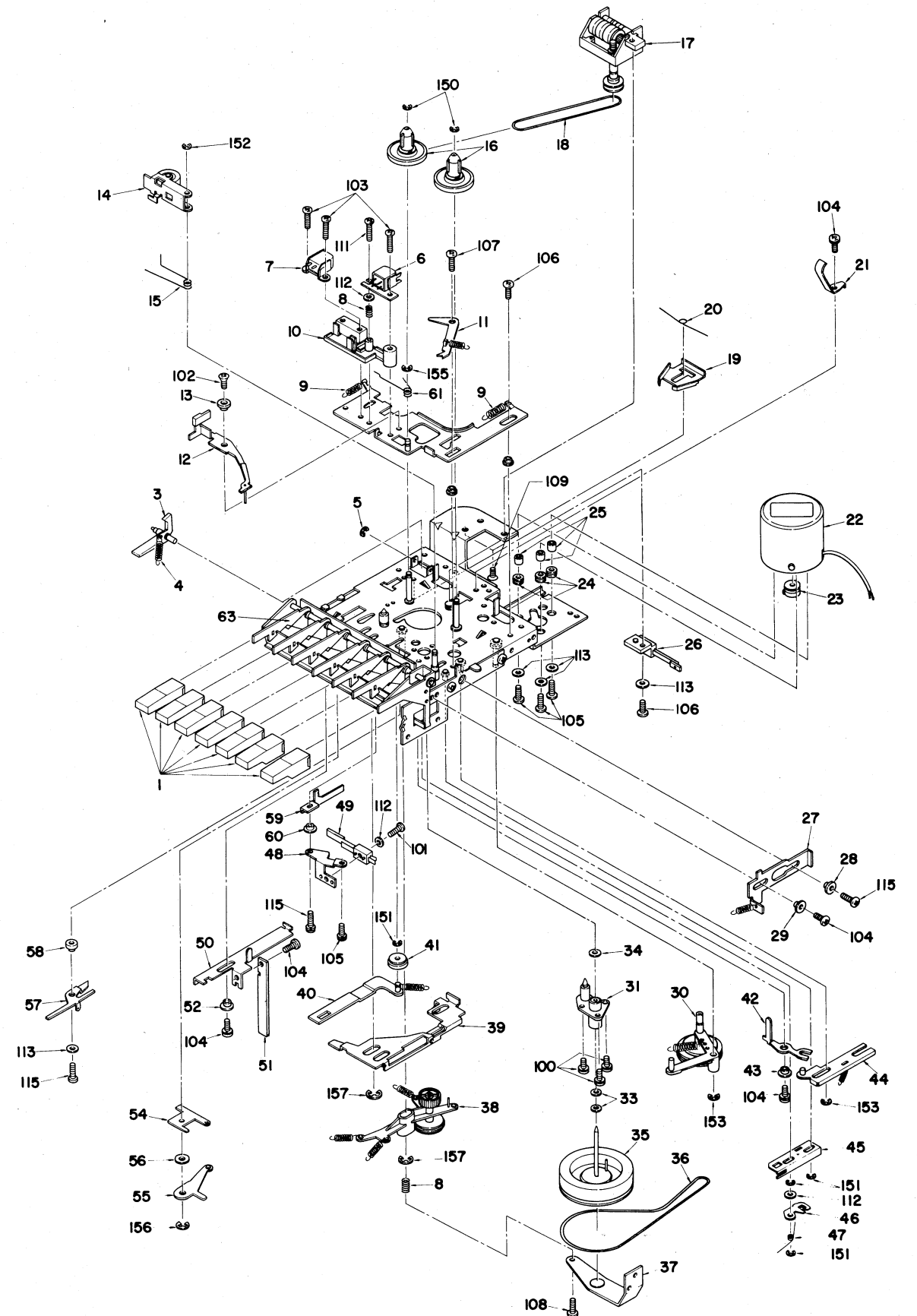
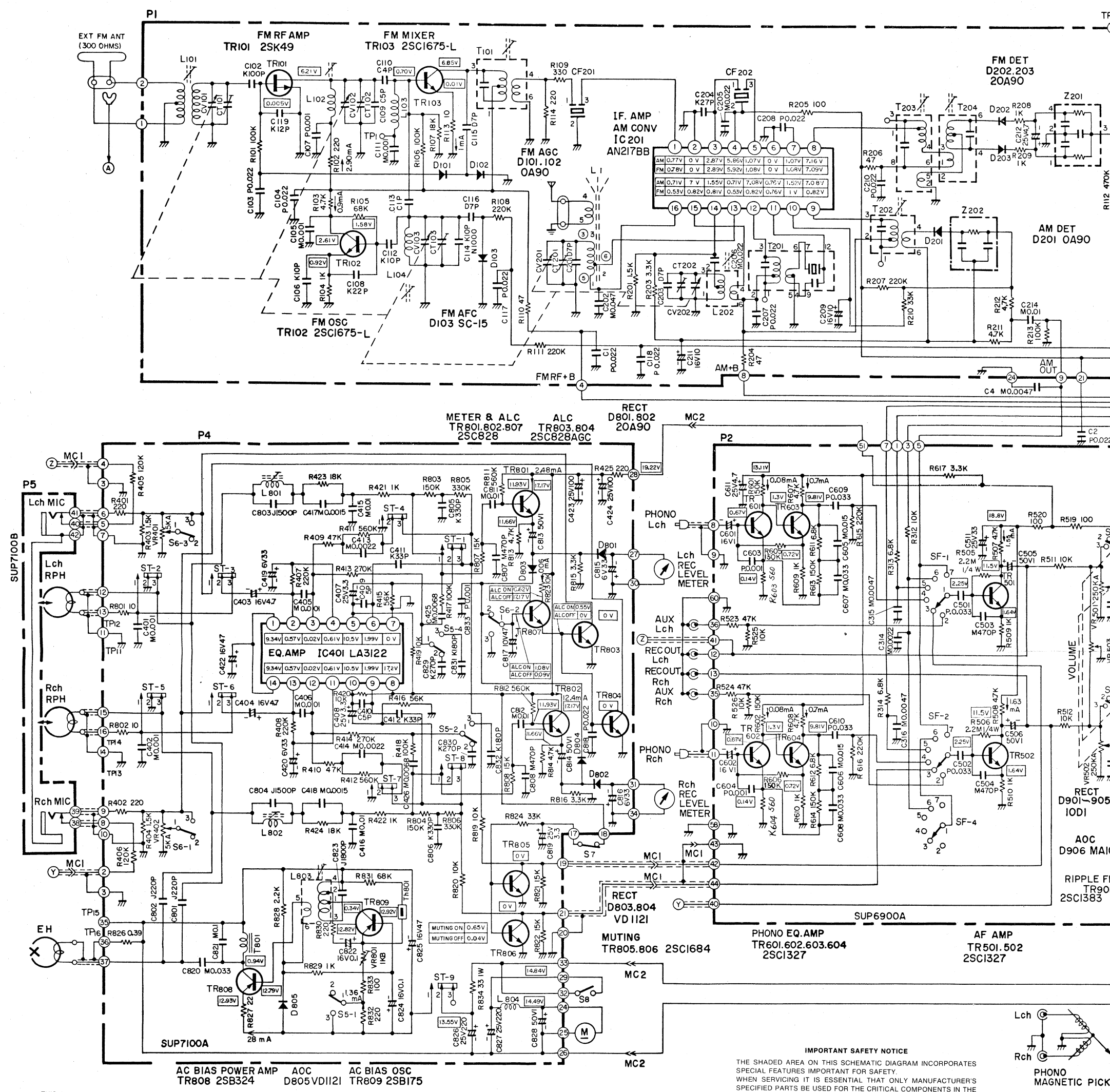


FIG. 4

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SE-2657

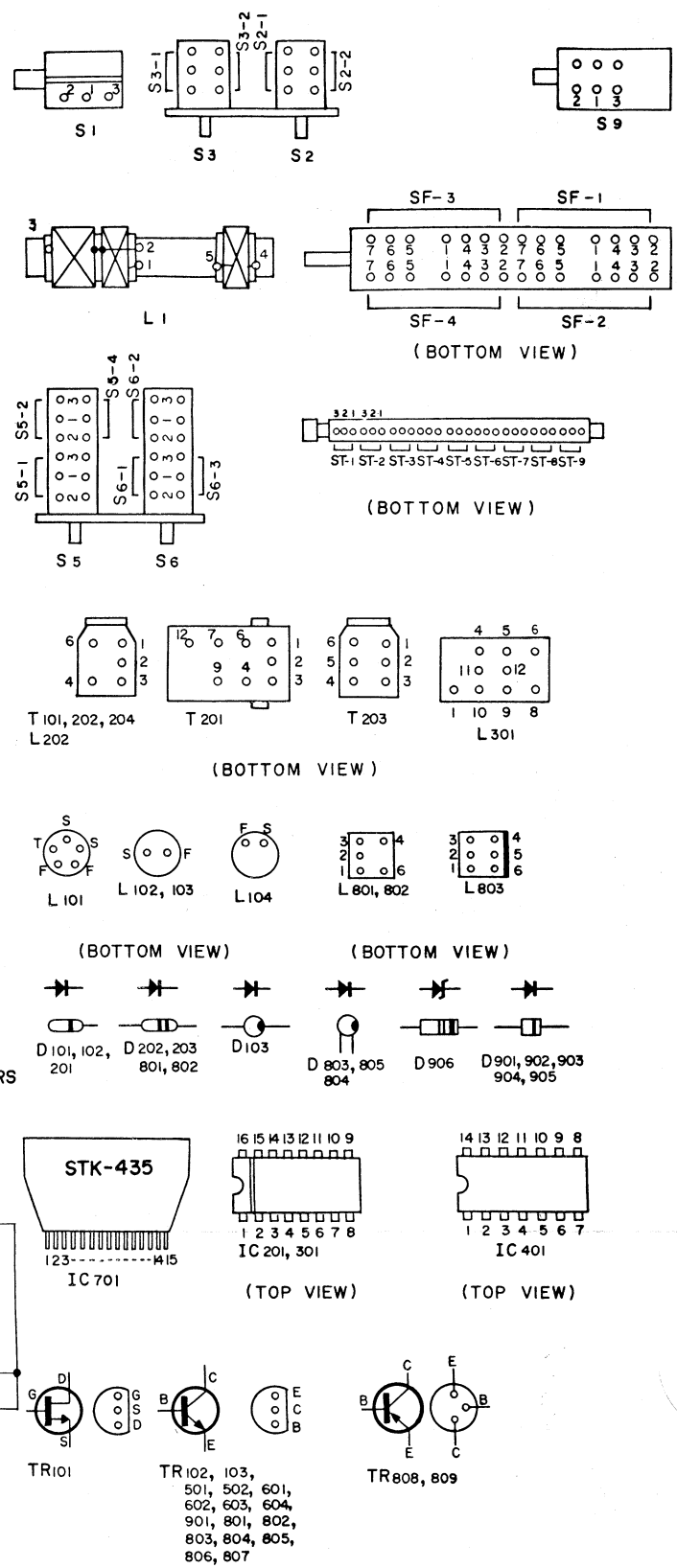
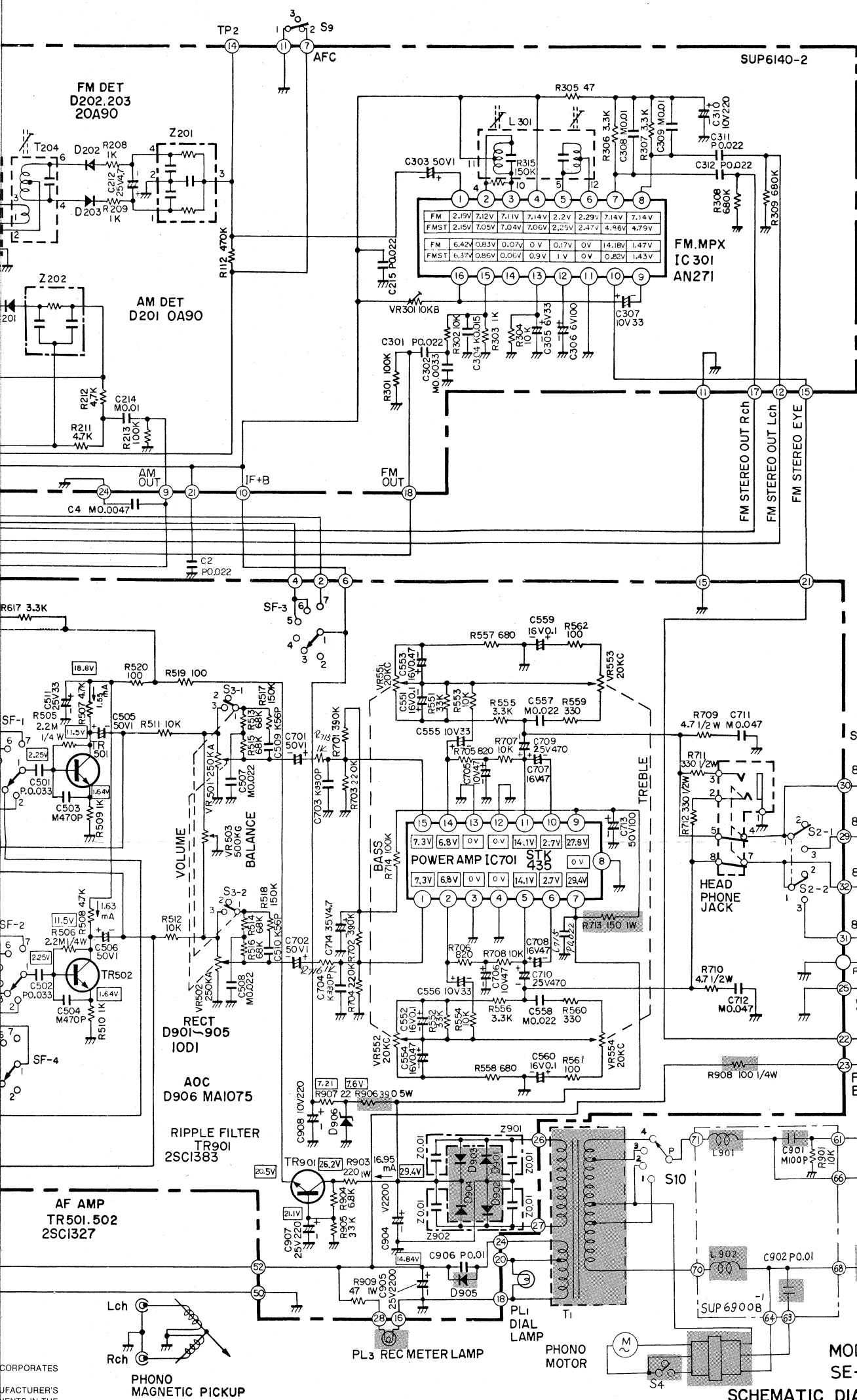
SCHEMATIC DIAGRAM OF M



* THIS DIAGRAM MIGHT BE MODIFIED WITHOUT NOTICE FOR FURTHER DEVELOPMENT OF TECHNOLOGY.

R	801 403	827 101	407 829 104 830	105 421	415	418 106 107 113	807 108	110 111 114 109	815	425 201 203	204 601 605	205 611	615	206 207 210	617	211 212 208	213 519	511
C	402 404	408 423 102	411 422	416	803 417	820 819 811	812 823	813 814	816	525 603 606	607 613	616	314 312	505 507	209	520	511	512
L	401 405	828 424 103	412 831	804 419	805 834	813 814	808 821	523 604	608 614	524 610	609	210 315	501 511	505 512	2	511	512	513
T	402 406	826 410 414 832	415 416 417	418 419	420 421	422 423	424 425	426 427	428 429	430 431	432 433	434 435	436 437	438 439	440 441	442 443	444 445	446 447
SW	ST-2 S6-3	ST-3	S5-1	ST-4	S5-4 ST-1	S5-2	S6-2	S7	S8	SF-1	SF-2	SF-3	SF-4	SF-5	SF-6	SF-7	SF-8	SF-9

DIAGRAM OF MODEL SE-2657



	IC 201	IC 301	IC 401	IC 701
1	AM (V) 0.77	FM (V) 0.78	FM (V) 2.19	FMST (V) 2.15
2	0	0	7.12	7.05
3	2.87	2.89	7.11	7.04
4	5.86	5.92	7.14	7.06
5	1.07	1.08	2.20	2.25
6	0	0	2.29	2.47
7	1.07	1.08	7.14	4.86
8	7.16	7.09	7.14	4.79
9	7.08	0.82	1.47	1.43
10	1.52	1.00	14.18	0.82
11	0.76	0.76	0	0.61
12	7.08	0.82	0.17	1.00
13	0.71	0.53	0	0.90
14	1.55	0.81	0.07	0.06
15	7.00	0.82	0.83	0.86
16	0.71	0.53	6.42	6.37

MODEL NO. SE-2657 SCHEMATIC DIAGRAM

617	211	212	208	213	519	112	513	517	907	701	909	301	302	303	557	304	305	306	307	709	308	309	901	1
505	507	209	520	511	515	518			703	702	714		551	553	555	708	561	713		711	710			
506	509			512	514				904	704	715		552	705	707	556	559			712	908			
508					516				905	906	716			706	558		560							
510									903					554	315		562							
501	511	505	212	2	507	509	701	908	714	904	553	303	302	304	705	305	559	306	307	309	310	311	905	901
502	503	506	214		508	510		907	704	215	551	301	555	706		707	557		713	308		312	711	902
504			4				702	703			552	556				708	558						712	
											554	906				709	560	715						
											905					710								
															301							901		
																						902		
204																			1					
SF-1					SF-3	S 3-1		S 9											S 4				S 2-1	S 1
SF-2	SF-4					S 3-2																	S 2-2	

- 1) S1 : POWER SWITCH in "OFF" position.
S2-1~2 : SPEAKER SELECTOR SWITCH in "MAIN" position.
S3-1~2 : LOUDNESS SWITCH in "OFF" position.
S4 : PHONO MOTOR SWITCH in "OFF" position.
S5-1 : TAPE SELECTOR SWITCH in "NORMAL" position.
S5-2 : TAPE SECTION MUTING SWITCH in "ON" position.
S5-3 : TAPE MOTOR SWITCH in "OFF" position.
S5-4 : AFC SWITCH in "OFF" position.
S6-1 : POWER VOLTAGE SELECTOR in "240 V" position.
S6-2 : (P. COMMON 1.100~115V, 2.115~130V, 3.200~225V, 4.225~250V)
S6-3 : FUNCTION SELECTOR SWITCH in "TAPE/MIC" position.
SF-1~4 : (1. Common 2. AUX 3. TAPE/MIC 4. PHONO 5. FM STEREO 6. FM 7. AM)
ST-1~9 : REC PLAY SELECTOR SWITCH in "PLAY" position.
- 2) Letters (M, K, J, P, Z) indicate tolerance of capacitors as follows.
M = ±20% K = ±10% J = ±5% P = ±100% Z = ±80%
- 3) DC voltages are to be measured with DC VTVM under no signal condition in FM position.
- 4) DC voltages of cassette part are to be measured with DC VTVM in "REC" and "PLAY" position.

DIAL CORD STRINGING GUIDE

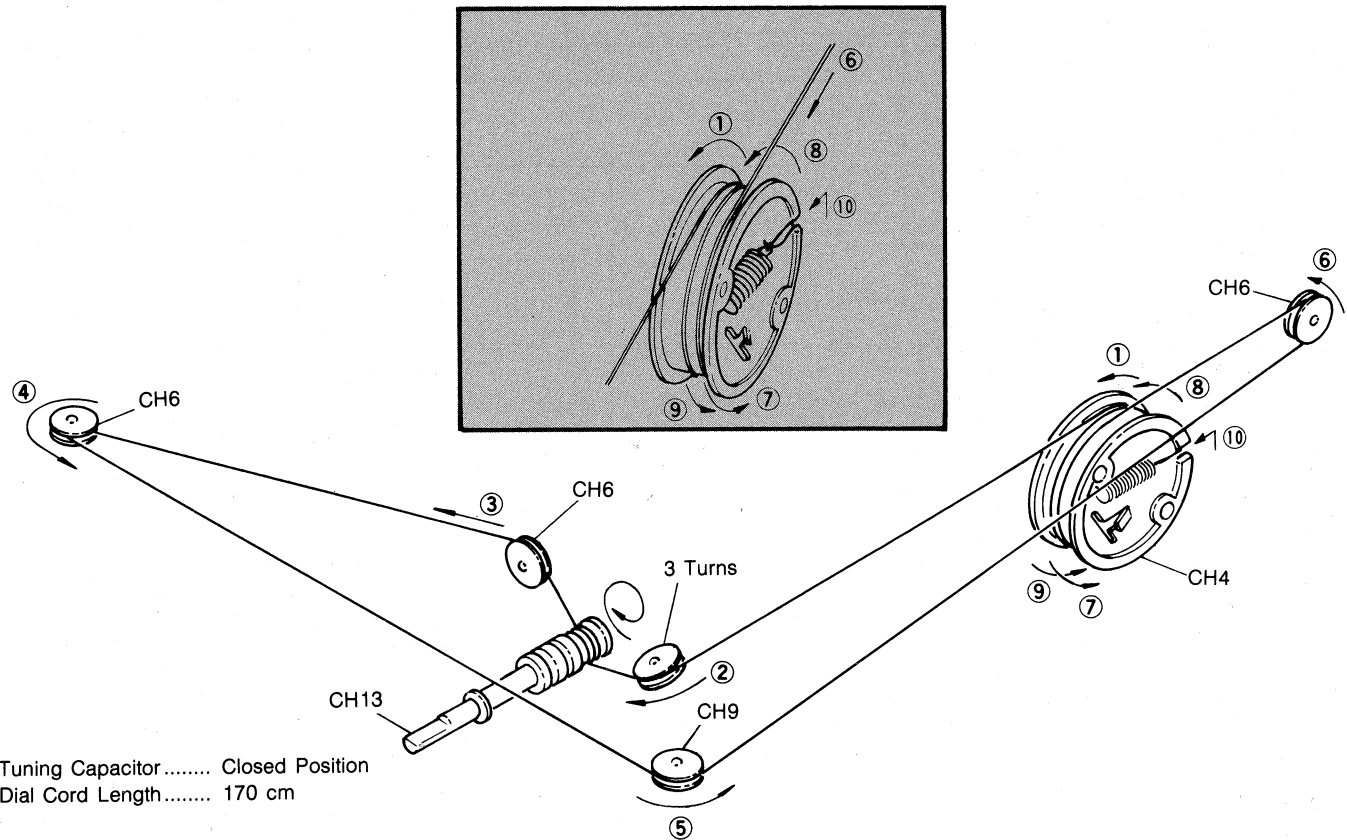


FIG. 5

ALIGNMENT INSTRUCTIONS (RADIO)

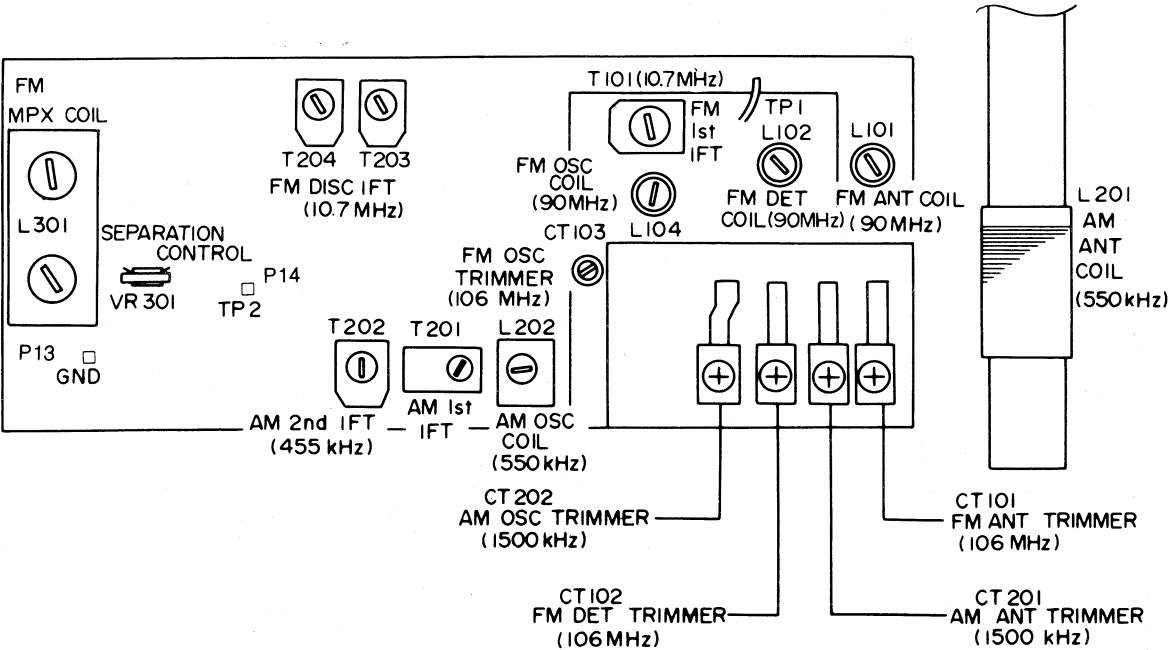


FIG. 6 ALIGNMENT POINTS

ALIGNMENT INSTRUCTIONS (RADIO)

FREQUENCY AND DISTANCE ON DIAL SCALE

To accurately align to the proper frequencies on the dial scale, refer to Table below and mark the edge of the dial scale accordingly, using the "Start Point" mark on the dial scale as a reference point.

Control Setting and Procedure:

1. Volume Control Maximum (AM-IF and RF, FM-RF); Minimum (FM-IF)
2. Treble Control Center
3. Bass Control Center
4. Balance Control Center
5. Function Selector RADIO
6. Band Selector AM, FM, FM STEREO
7. Power Switch ON
8. Output of signal generator should be no higher than necessary to obtain output reading.
9. Make certain that speaker system is connected to the tuner when aligning.

BAND	FREQUENCY	DISTANCE FROM "START POINT"
AM	550 kHz	5.8 mm (3/16")
	1500 kHz	154.8 mm (6-1/8")
FM	90 MHz	22.5 mm (7/8")
	106 MHz	151 mm (5-15/16")

STEP	SIGNAL GENERATOR OR SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (VTVM or SCOPE)	ADJUST	REMARKS
	CONNECTION	FREQUENCY				
AM-IF and RF ALIGNMENT						
1	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz	Point of non-interference (on/about 600 kHz)	Output meter across speaker jack (L) (Imp. 8Ω)	T202 (2nd IFT)	Adjust for maximum output.
2	Fashion loop of several turns of wire and radiate signal into loop of receiver.	550 kHz 30% Mod. with 400 Hz	550 kHz (5.8 mm)	Output meter across speaker jack (L) (Imp. 8Ω)	L201 (ANT Coil) L202 (OSC Coil)	Adjust for maximum output by sliding coil (L201) along ferrite core.
3	Fashion loop of several turns of wire and radiate signal into loop of receiver.	1500 kHz 30% Mod. with 400 Hz	1500 kHz (154.8 mm)	Output meter across speaker jack (L) (Imp. 8Ω)	CT201 (ANT Trimmer) CT202 (OSC Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
Note: Cement antenna bobbin with wax after completing alignment. T201 is pre-aligned. Do not touch it.						
FM-IF and DETECTOR ALIGNMENT						
1	High side through 0.001 mfd to point TP1. Common to chassis.	10.7 MHz (400 kHz SWP.)	Point of non-interference (on/about 98 MHz)	Connect vert. amp. of scope to point TP1. Common to chassis	T101 (FM 1st IFT) T203 (FM Disc. IFT)	Adjust for maximum amplitude and symmetrical curve. (Refer to Fig. 7)
2	High side through 0.001 mfd to point TP1. Common to chassis.	10.7 MHz (400 kHz SWP.)	Point of non-interference (on/about 98 MHz)	Connect vert. amp. of scope to point TP2. Common to chassis.	T204 (FM Disc. IFT)	Adjust for maximum amplitude and proper linearity between ±100 kHz markers. (Refer to Fig. 8)
Note: Before aligning step 1, turn the cores of T204 fully counterclockwise.						
FM-RF ALIGNMENT						
1	Connect to EXT. FM antenna terminal through Dummy antenna. Common to chassis. (Refer to Fig. 9)	90 MHz 30% Mod. with 400 Hz	90 MHz (22.5 mm)	Output meter across speaker jack (L) (Imp. 8Ω)	L104 (FM OSC Coil) L101 (FM ANT Coil) L102 (FM DET Coil)	Adjust for maximum output.
2	Connect to EXT. FM antenna terminal through Dummy antenna. Common to chassis. (Refer to Fig. 9)	106 MHz 30% Mod. with 400 Hz	106 MHz (151 mm)	Output meter across speaker jack (L). (Imp. 8Ω)	CT103 (FM QSC Trimmer) CT101 (FM ANT Trimmer) CT102 (FM DET Trimmer)	Adjust for maximum output. Repeat steps (1) and (2).
Note: As three output readings will be present, adjustments must be made at center frequency.						

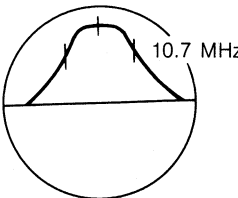


FIG. 7

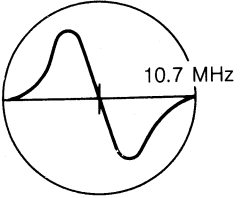


FIG. 8

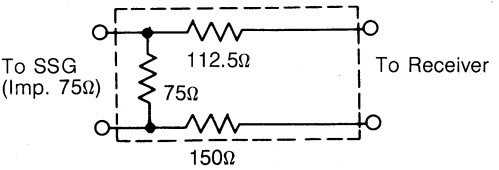
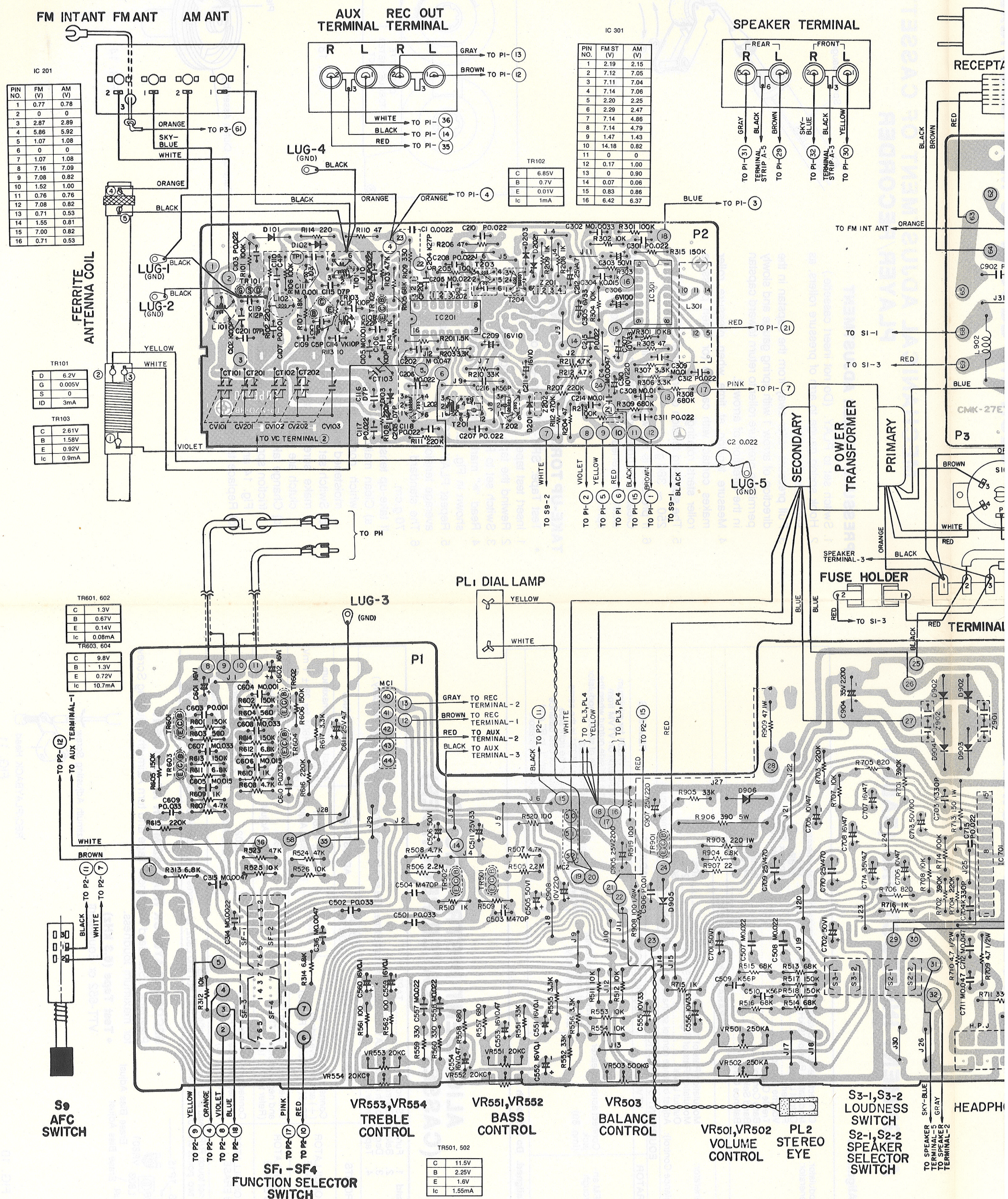


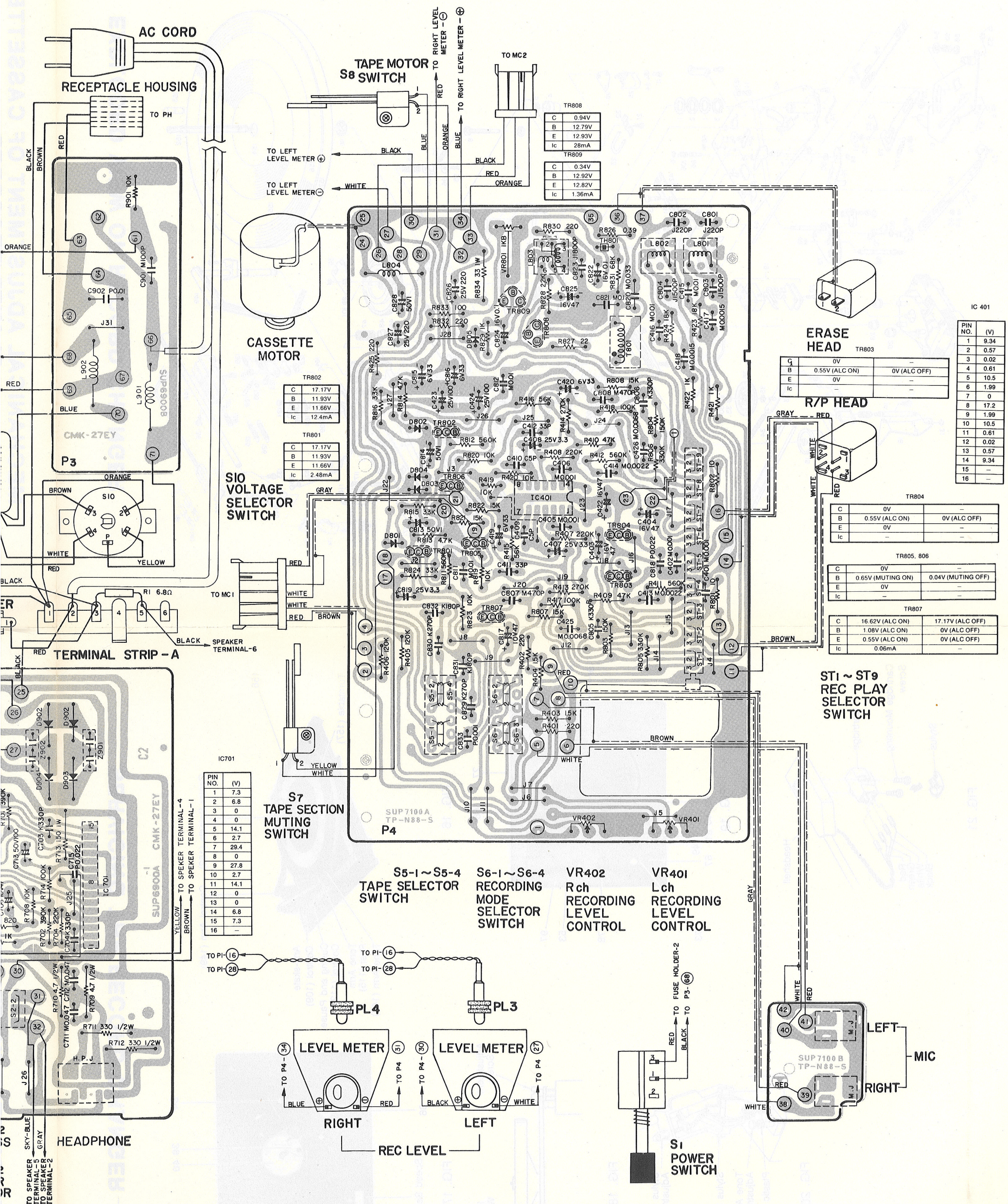
FIG. 9 DUMMY ANTENNA

WIRING DIAGRAM OF M



* THIS DIAGRAM MIGHT BE MODIFIED WITHOUT NOTICE FOR FURTHER DEVELOPMENT OF TECHNOLOGY.

AM OF MODEL SE-2657



ALIGNMENT INSTRUCTIONS (RADIO)

■ FM Stereo Alignment

Notes: 1. Stereo Modulator: Connect Sterec Modulator to EXT. Mod. terminal of signal generator 2. Signal Generator: Modulation Rate of 19 kHz Pilot Signal 10% Output Level 30 dB Frequency Approx. 98 MHz 3. Tuner: Volume Control Audible level of speaker sound Treble Control MIN Bass Control Center Band Selector FM STEREO Balance Control Center				
SEPARATION ALIGNMENT				
Notes: 1. Signal Generator: Modulation Rate of 19 kHz Pilot Signal 10% Modulation Rate of Right and Left Signal 27% Output Level 60 dB 2. Tuner (Balance Control): Adjust balance control so that output level from both channels becomes equal.				
EQUIPMENT CONNECTION				
SIGNAL GENERATOR	VTVM	OSCILLOSCOPE	ADJUST	REMARKS
Connect to EXT. FM antenna terminal through dummy antenna. (Refer to Fig. 9)	Connect across speaker jack. (Imp. 8Ω)	Connect vertical amp. input of scope to terminals of VTVM.	VR301 (Separation Control)	Adjust VR301 for minimum indication on VTVM from the left side output when the right side of stereo modulator is modulated. Adjust VR301 in the same way for the right side. Adjust for best balance between "L to R" and "R to L" separation.
* L301 is pre-aligned. Do not touch it.				

ALIGNMENT INSTRUCTIONS (CASSETTE PLAYER/RECORDER)

Control Setting and Procedure: 1. Function Selector TAPE 2. Balance Control Center 3. Depress push buttons PLAY and REC at the same time. (Be sure to release the record safety lever manually.) 4. Tape Selector CrO ₂					
STEP	CIRCUITS	VTVM CONNECTION	VOLUME CONTROL	ADJUSTMENT	REMARKS
1	AC BIAS OSCILLATOR and ERASE	Connect positive side to TP16 (+) and negative side to TP15 (-). (Refer to Fig. 10)	MIN.	L803, VR801 Erase Bias Adjust	Adjust L803 for maximum output. Adjust VR801 for 28 ± 1 mV reading on VTVM-1.
2	AC BIAS OSCILLATOR and ERASE	Connect positive side to TP12 and negative side to TP11 (Refer to Fig. 10)	MIN.	L801 REC Bias Adjust	Adjust L801 for 4.3 ± 0.1 mV reading on VTVM-1.
3	AC BIAS OSCILLATOR and ERASE	Connect positive side to TP14 and negative side to TP13 (Refer to Fig. 10)	MIN.	L802 REC Bias Adjust	Adjust L802 for 4.3 ± 0.1 mV reading on VTVM-2. Repeat steps (2) and (3).
Notes: 1. Do not touch R/P Head and Erase Head when adjusting. 2. As two points are obtainable when adjusting the L801 and L802, turn cores down clockwise before making adjustments.					

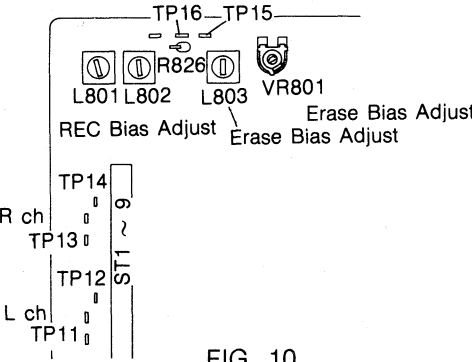


FIG. 10

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Playback a Standard Alignment Tape and turn Azimuth Adjusting Screw for maximum loudness.

* Test Tape (6.3 kHz)
VTT-652 or Equivalent

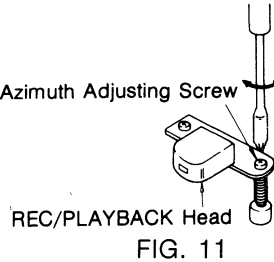


FIG. 11

MECHANICAL ADJUSTMENT OF CASSETTE PLAYER/RECORDER

PRESSURE ROLLER ADJUSTMENT

- Switch set to PLAY. (Do not insert cassette.)
- Hook spring gauge to arm of pressure rollers, as shown in Fig. 12.
- Pull pressure roller away from the capstan in the direction of arrow 1 with spring gauge and slowly permit the pressure roller to return toward capstan in the direction of arrow 2.
- Measure tension at time when pressure roller makes contact with capstan (or when pressure roller starts rotating).
- The standard tension of pressure roller should be 250 ~ 380 g.
- If pressure is not within these limits; Clean the rubber roller and capstan with a soft cloth moistened with alcohol or replace pressure spring.

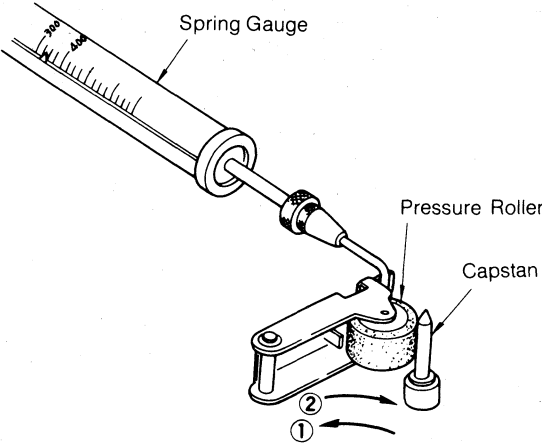


FIG. 12

TAKE-UP TORQUE ADJUSTMENT

- * Test Tape: SRK-CT (Take-up Torque Meter)
 - 1. Insert test tape.
 - 2. Rewind the tape to its starting point.
 - 3. Switch set to PLAY.
 - 4. Read "►" mark of indicator on take-up side, as shown in Fig. 13.
 - 5. Repeat PLAY-STOP several times and read the average tension.
 - 6. The standard take-up tension should be 30 ~ 70 g.cm.
- If take-up tension is not within these limits;
- Clean main belt, take-up reel and all parts which contact them with a cotton swab moistened with alcohol, and/or
 - Switch set to "OFF", remove main belt and make sure that take-up reel and take-up clutch are rotating smoothly.
 - Change take-up clutch tension by turning the friction spring under reel table, as shown in Fig. 14 and/or
 - Replace take-up clutch.

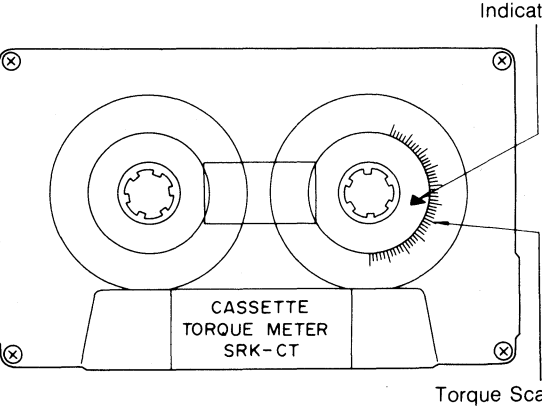


FIG. 13

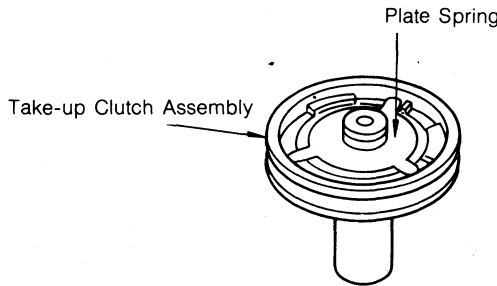


FIG. 14

EXPLODED VIEW OF RECORD CHANGER

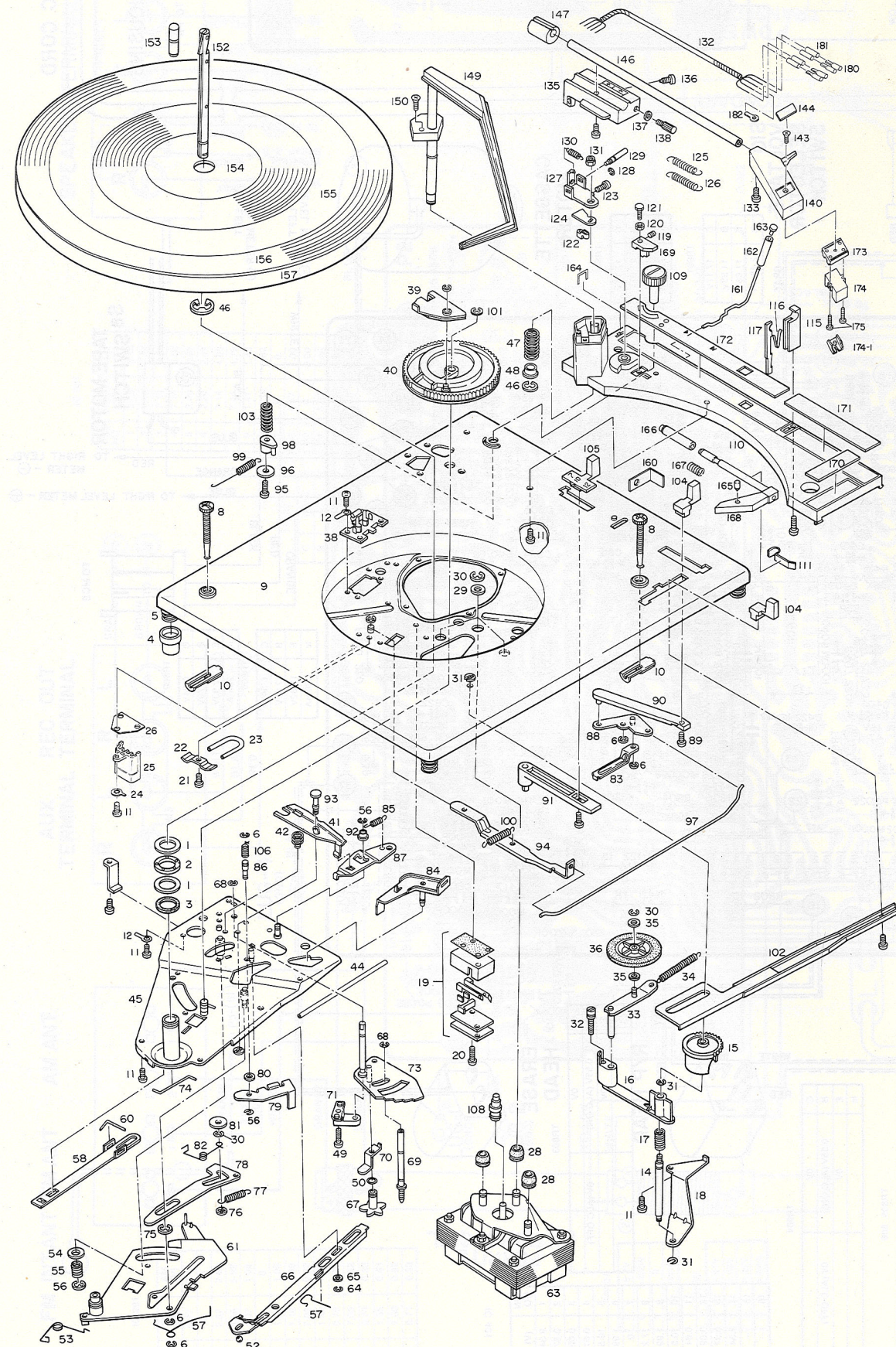


FIG. 15

SERVICING THE RECORD CHANGER - 1

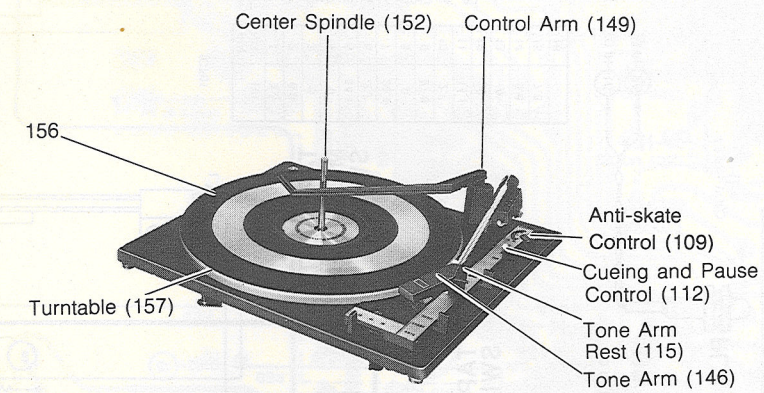


FIG. 16

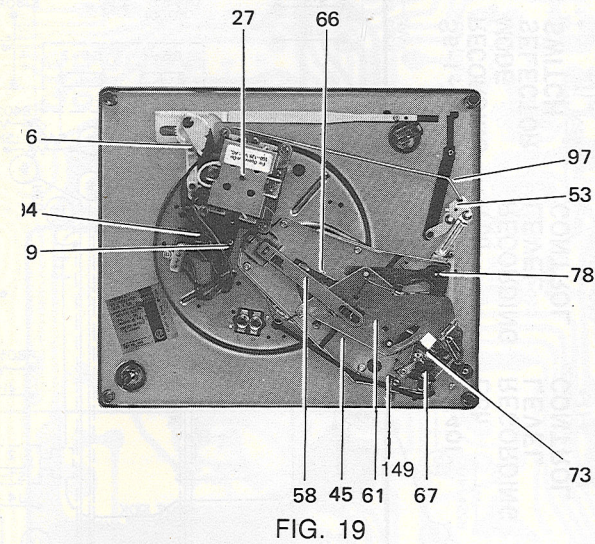


FIG. 19

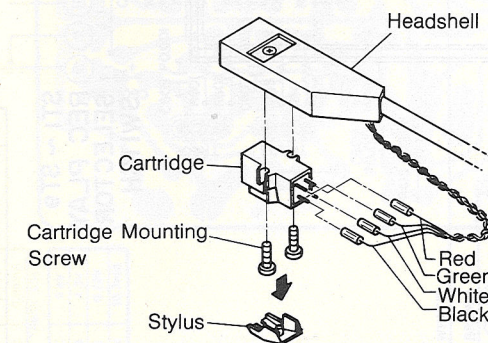


FIG. 21

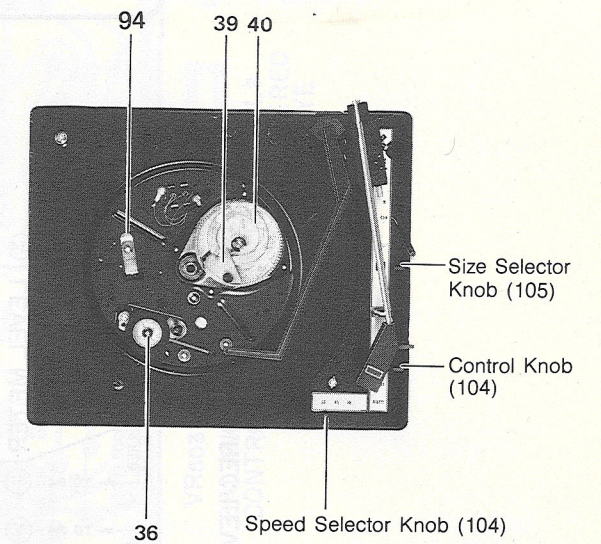


FIG. 17

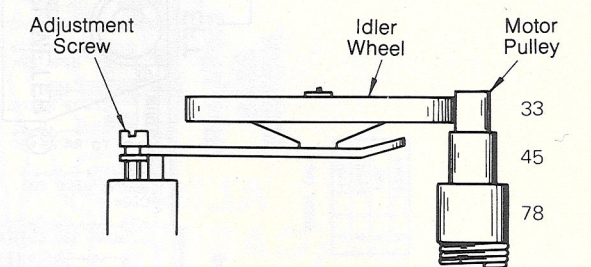


FIG. 18

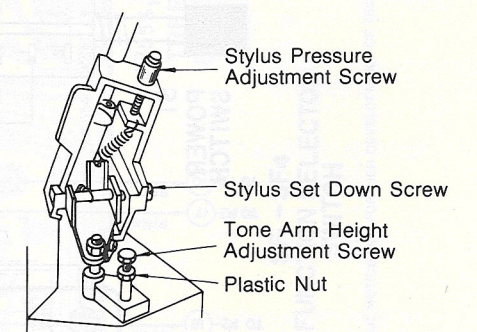


FIG. 20

SERVICING THE RECORD CHANGER—2

ASSEMBLY SERVICE INFORMATION

(Refer to Figs. 16, 17 and 19)

■ Standard Automatic Spindle

To remove standard automatic spindle 152 pull spindle 152 straight up, turn clockwise to release from retaining clip 74 and lift out of the center hole in turntable 157.

To install standard automatic spindle 152 insert spindle 152 into the center hole of turntable 157. Rotate spindle 152 until the projecting lug on the side of spindle 152 enters the slot in the turntable bearing and is locked in position by retaining clip 74.

■ Control Arm Assembly

To remove control arm 149 remove circlip 6, spacer 48, and control arm spindle spring 47. Pull control arm 149 up and out of control housing 110.

■ Turntable Assembly

Remove center disc 154 from turntable 157. Move control knob to Stop. Remove circlip 46 and lift turntable 157 off changer. When replacing turntable 157 make certain the control knob is in the Stop position so that idler pulley 36 is not damaged by the driving rim of turntable 157.

■ Tone Arm Assembly

To remove the complete tone arm assembly, first unsolder cable 132 leads at tag mounting strip 13 or phono socket 38 and release cable 132 from all fastenings.

Unhook stylus pressure spring 125 from hook on tone arm hinge 127. Remove tone arm pivot screw 136 to release tone arm from hinge 127. Tone arm may now be removed.

ADJUSTMENTS

This changer has been accurately pre-adjusted for correct stylus set-down, stylus pressure and tone arm height. If new adjustments should ever be needed, make them with a 12" record; then position will be correct for all sizes.

■ Idler Pulley

Disconnect changer from AC source and remove turntable 157. Set speed selector knob to 33 and control knob to Start so idler pulley 36 rests against the 33 rpm step on the motor pulley 108. Using a screwdriver, turn adjustment screw 32 until idler pulley 36 is centered on the 33 rpm step of motor pulley. Check the alignment of idler pulley 36 at all speeds and readjust if necessary.

Move the control knob to Stop and replace turntable 157 taking care not to damage idler pulley 36.

■ Tone Arm Height

To raise, hold plastic nut 120 firmly and turn screw head 121 by hand counterclockwise; to lower, turn screw head 121 clockwise. Adjust stylus to clear a full stack of records by 1/8".

■ Stylus Set-Down

The set-down position of the stylus on the record is adjusted by means of the stylus adjusting screw 136.

This screw is adjusted to obtain correct set-down for a 12" record. It should be adjusted so the stylus will set down 1/8" from the outside edge of the

record. This adjustment should be made with a 12" record on the turntable. When the stylus set-down is adjusted correctly for 12" record, it will automatically be corrected for 7" and 10" records.

■ Stylus Pressure

NOTE: It is necessary to use a stylus pressure gauge in adjusting the stylus pressure of the tone arm.

One can be obtained from a local hi-fi store.

The stylus pressure indicator on the side of the tone arm is for reference only and indicates an increase or decrease in the nominal stylus pressure setting.

Turn stylus pressure adjusting screw 138 clockwise to reduce stylus pressure; counterclockwise to increase pressure.

■ Anti-Skate

This control has three positions; 2, 4, and 6 grams. Set this control to the number that is closest to the stylus pressure setting. This anti-skate feature prevents the tone arm from making quick lateral movements, such as skating through the "lead-in" grooves of a record.

■ Replacement Stylus

(Refer to Fig. 27)

- 1) Lift pickup arm to a position that will make the stylus accessible.
 - 2) To remove stylus, pull stylus from cartridge in the direction of arrow, as shown in Fig. 21.
 - 3) Insert new stylus by pushing it in firmly.
- Be sure to set the power button to "OFF" position when replacing the stylus.
 - To replace cartridge, remove two (2) cartridge mounting screws and disconnect four (4) connectors.

LUBRICATION (Refer to Figs. 17 and 19)

The mechanism has been thoroughly lubricated at the factory and under normal use should not require additional lubrication for at least one year. However, after prolonged use, it may be necessary to lubricate parts as specified.

Use a medium grade grease only on these parts:

1. Speed change arm 16.
2. Idler pulley arm 33.
3. Bearing surfaces of operating plate 61.
4. Gear teeth, bearing and cam track on cam gear 40.
5. Ball race 2.

Use a light machine oil on these parts:

1. Tone arm raising spindle 69.
2. Idler pulley spindle on pulley arm 33.
3. Upper and lower bearing of motor 27.

NOTE: Oil or grease should never be applied to or allowed to collect on the rubber tire of the idler pulley 36, the inside surface of the driving rim of turntable 157 or on the motor pulley.

* Refer to C-141 and C-141R1 Service Manuals for more detailed service information.

BLOCK DIAGRAM

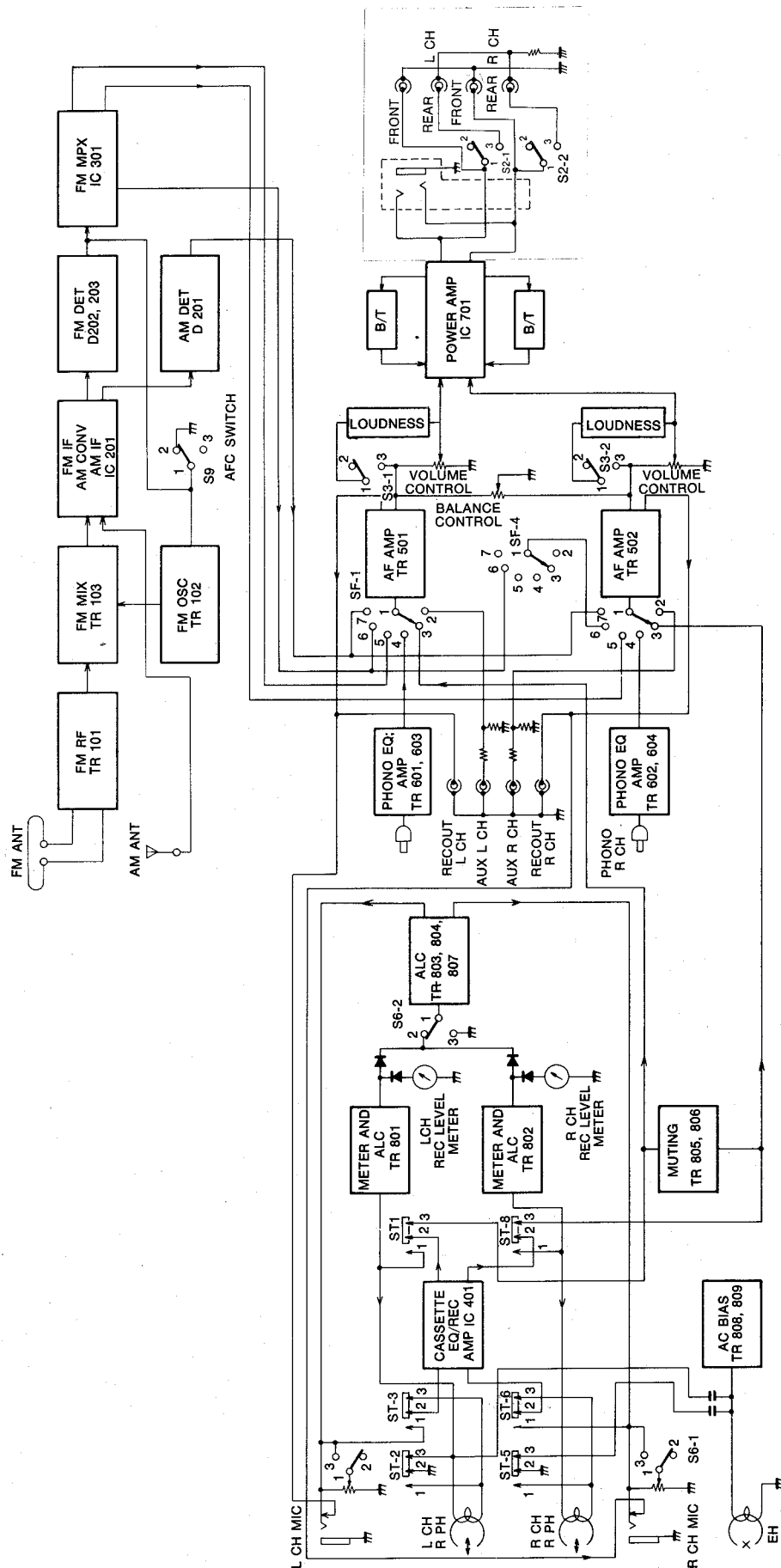


FIG. 22

REPLACEMENT PARTS LIST

- NOTES:**
1. Part numbers are indicated on most mechanical parts.
 2. Please use this part number for parts orders.
 3. Part numbers with mark (*) on Ref. No. are service standard parts and may differ from production parts.
 4. Components identified by shaded area have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
TRANSISTORS							
TR101*	2SK49	Transistor, FM RF Amplifier	1				
TR102*	2SC1675-L	Transistor, FM Oscillator	1				
TR103*	2SC1675-L	Transistor, FM Mixer	1				
TR501,502*	2SC1327	Transistor, AF Amplifier	2				
TR601~604*	2SC1327	Transistor, Phono Equalizer Amplifier	4				
TR801,802*	2SC828	Transistor, Meter Rectifier	2				
TR803,804*	2SC828	Transistor, ALC	2				
TR805,806*	2SC1684	Transistor, Muting	2				
TR807*	2SC828	Transistor, ALC	1				
TR808*	2SB324	Transistor, AC Bias Power Amplifier	1				
TR809*	2SB175	Transistor, AC Bias Oscillator	1				
TR901*	2SC1383	Transistor, Ripple Filter	1				
INTEGRATED CIRCUITS							
IC201*	AN217	IC, IF Amplifier and AM Converter	1				
IC301*	AN271	IC, FM MPX Amplifier	1				
IC401	LA3122	IC, Equalizer Amplifier	1				
IC701	STK435	IC, Power Amplifier	1				
DIODES							
D101,102*	20A90	Diode, FM AGC	2				
D103	SC-15	Diode, FM AFC	1				
D201*	20A90	Diode, AM Detector	1				
D202,203	20A90	Diode, FM Detector	2				
D803,804 805	VD1121	Diode, Rectifier and AOC	3				
D801,802	20A90	Diode, Rectifier	2				
D901~905	10D1	Diode, Rectifier	5				
D906	MA1075	Diode, AOC	1				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
THERMISTOR							
TH1	RRT103	Temperature Compensator	1				
LAMPS AND FUSE							
PL1	XAMQ33P	Pilot Lamp, Dial 12V 380mA	1				
PL3	XAMR34X500-1	Pilot Lamp, Meter 14V 60mA	1				
PL2	—	Refer to Ref. No. CH2	1				
F1	XBAS2A1201	Fuse, 250V 1.25AT	1				
METER							
ME1	SSM54	REC Level Meter	2	○			
COILS AND TRANSFORMERS							
L1	SLF2D20-O	Ferrite Antenna Coil, AM	1				
L102	RLD4N30	Collector Coil, FM	1				
L103	RLQY30S1-O	Coil, IF Trap	1				
L104	SLO4N12-O	Oscillator Coil	1				
L101	SLA4N2-O	Antenna Coil, FM	1				
L202	RLO2M9-K	Oscillator Coil, AM	1				
L301	RLM1Z3Q-K	MPX Coil, FM	1				
L801,802	RLQC542-K	Coil, Bias Trap	2				
L803	SLO9Z10-K	Bias Oscillator Coil	1				
L804	ELQ250A999	Coil, RFC	1				
L901,902	SLQY35S-2S	Coil, RFC	2				
T1	SLT5N34-W	Power Transformer	1				
T101	RLI4M101	IFT, FM 1st	1				
T201	RLI7W105R-T	CFT, AM	1				
T202	RLI2M402	IFT, AM	1				
T203	RLI4M501-M	IFT, FM Discriminator	1				
T204	RLI4M502-M	IFT, FM Discriminator	1				
CF201,202	RVFCF10M12CR	CFT, FM	2				
T801	SLT6E2-D	Choke Transformer	1				
COMPONENT COMBINATION							
Z201	EXA5DL04C	Component Combination, FM, Det	1				
Z202	EXAF203Z471	Component Combination, AM, Det	1				

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
Z901,902	EXNF2SL04	Component Combination, Rectifier	1				
RESISTORS							
R1	ERF5AK6R8	6.8 ohm 5W ±10% Wire	1				
R101*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R102*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R103*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R104*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R105*	ERD25TJ683	68k ohm 1/4W ±5% Carbon	1				
R106*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R107*	ERD25TJ183	18k ohm 1/4W ±5% Carbon	1				
R108*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R109*	ERD25TJ331	330 ohm 1/4W ±5% Carbon	1				
R110*	ERD25TJ470	47 ohm 1/4W ±5% Carbon	1				
R111*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R112*	ERD25TJ474	470k ohm 1/4W ±5% Carbon	1				
R113*	ERD25TJ100	10 ohm 1/4W ±5% Carbon	1				
R114*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R201*	ERD25TJ152	1.5k ohm 1/4W ±5% Carbon	1				
R203*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R204*	ERD25TJ470	47 ohm 1/4W ±5% Carbon	1				
R205*	ERD25TJ101	100 ohm 1/4W ±5% Carbon	1				
R206*	ERD25TJ470	47 ohm 1/4W ±5% Carbon	1				
R207*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R208*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R209*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R210*	ERD25TJ333	33k ohm 1/4W ±5% Carbon	1				
R211*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R212*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R213*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R301*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R302*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R303*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R304*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R305*	ERD25TJ470	47 ohm 1/4W ±5% Carbon	1				
R306*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R307*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R308*	ERD25TJ684	680k ohm 1/4W ±5% Carbon	1				
R309*	ERD25TJ684	680k ohm 1/4W ±5% Carbon	1				
R312*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R313*	ERD25TJ682	6.8k ohm 1/4W ±5% Carbon	1				
R314*	ERD25TJ682	6.8k ohm 1/4W ±5% Carbon	1				
R315*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R401*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R402*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R403*	ERD25TJ152	1.5k ohm 1/4W ±5% Carbon	1				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
R404*	ERD25TJ152	1.5k ohm 1/4W ±5% Carbon	1				
R405*	ERD25TJ124	120k ohm 1/4W ±5% Carbon	1				
R406*	ERD25TJ124	120k ohm 1/4W ±5% Carbon	1				
R407*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R408*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R409*	ERD25TJ473	47k ohm 1/4W ±5% Carbon	1				
R410*	ERD25TJ473	47k ohm 1/4W ±5% Carbon	1				
R411*	ERD25TJ564	560k ohm 1/4W ±5% Carbon	1				
R412*	ERD25TJ564	560k ohm 1/4W ±5% Carbon	1				
R413*	ERD25TJ274	270k ohm 1/4W ±5% Carbon	1				
R414*	ERD25TJ274	270k ohm 1/4W ±5% Carbon	1				
R415*	ERD25TJ563	56k ohm 1/4W ±5% Carbon	1				
R416*	ERD25TJ563	56k ohm 1/4W ±5% Carbon	1				
R417*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R418*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R419*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R420*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R421*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R422*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R423*	ERD25TJ183	18k ohm 1/4W ±5% Carbon	1				
R424*	ERD25TJ183	18k ohm 1/4W ±5% Carbon	1				
R425*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R426*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R505	ERC14GK225	2.2M ohm 1/4W ±10% Solid	1				
R506	ERC14GK225	2.2M ohm 1/4W ±10% Solid	1				
R507*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R508*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R509*	ERD25TJ681	680 ohm 1/4W ±5% Carbon	1				
R510*	ERD25TJ681	680 ohm 1/4W ±5% Carbon	1				
R511*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R512*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R513*	ERD25TJ683	68k ohm 1/4W ±5% Carbon	1				
R514*	ERD25TJ683	68k ohm 1/4W ±5% Carbon	1				
R515*	ERD25TJ683	68k ohm 1/4W ±5% Carbon	1				
R516*	ERD25TJ683	68k ohm 1/4W ±5% Carbon	1				
R517*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R518*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R519*	ERD25TJ101	100 ohm 1/4W ±5% Carbon	1				
R520*	ERD25TJ101	100 ohm 1/4W ±5% Carbon	1				
R523*	ERD25TJ473	47k ohm 1/4W ±5% Carbon	1				
R524*	ERD25TJ473	47k ohm 1/4W ±5% Carbon	1				
R525*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R526*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R551*	ERD25TJ333	33k ohm 1/4W ±5% Carbon	1				
R552*	ERD25TJ333	33k ohm 1/4W ±5% Carbon	1				
R553*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R554*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R555*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
R556*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R557*	ERD25TJ681	680 ohm 1/4W ±5% Carbon	1				
R558*	ERD25TJ681	680 ohm 1/4W ±5% Carbon	1				
R559*	ERD25TJ331	330 ohm 1/4W ±5% Carbon	1				
R560*	ERD25TJ331	330 ohm 1/4W ±5% Carbon	1				
R561*	ERD25TJ101	100 ohm 1/4W ±5% Carbon	1				
R562*	ERD25TJ101	100 ohm 1/4W ±5% Carbon	1				
R601*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R602*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R603*	ERD25TJ561	560 ohm 1/4W ±5% Carbon	1				
R604*	ERD25TJ561	560 ohm 1/4W ±5% Carbon	1				
R605*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R606*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R607*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R608*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R609*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R610*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R611*	ERD25TJ682	6.8k ohm 1/4W ±5% Carbon	1				
R612*	ERD25TJ682	6.8k ohm 1/4W ±5% Carbon	1				
R613*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R614*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R615*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R616*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R617*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R701*	ERD25TJ394	390k ohm 1/4W ±5% Carbon	1				
R702*	ERD25TJ394	390k ohm 1/4W ±5% Carbon	1				
R703*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R704*	ERD25TJ224	220k ohm 1/4W ±5% Carbon	1				
R705*	ERD25TJ821	820 ohm 1/4W ±5% Carbon	1				
R706*	ERD25TJ821	820 ohm 1/4W ±5% Carbon	1				
R707*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R708*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R709*	ERD50TJ4R7	4.7 ohm 1/2W ±5% Carbon	1				
R710*	ERD50TJ4R7	4.7 ohm 1/2W ±5% Carbon	1				
R711*	ERD50TJ331	330 ohm 1/2W ±5% Carbon	1				
R712*	ERD50TJ331	330 ohm 1/2W ±5% Carbon	1				
R713*	ERG1ANJ151	150 ohm 1W ±5% Metal Film	1				
R714*	ERD25TJ104	100k ohm 1/4W ±5% Carbon	1				
R715*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R716*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R801*	ERD25TJ100	10 ohm 1/4W ±5% Carbon	1				
R802*	ERD25TJ100	10 ohm 1/4W ±5% Carbon	1				
R803*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R804*	ERD25TJ154	150k ohm 1/4W ±5% Carbon	1				
R805*	ERD25TJ334	330k ohm 1/4W ±5% Carbon	1				
R806*	ERD25TJ334	330k ohm 1/4W ±5% Carbon	1				
R807*	ERD25TJ153	150k ohm 1/4W ±5% Carbon	1				
R808*	ERD25TJ153	150k ohm 1/4W ±5% Carbon	1				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
R811*	ERD25TJ564	560k ohm 1/4W ±5% Carbon	1				
R812*	ERD25TJ564	560k ohm 1/4W ±5% Carbon	1				
R813*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R814*	ERD25TJ472	4.7k ohm 1/4W ±5% Carbon	1				
R815*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R816*	ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	1				
R819*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R820*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R821*	ERD25TJ153	15k ohm 1/4W ±5% Carbon	1				
R822*	ERD25TJ153	15k ohm 1/4W ±5% Carbon	1				
R823*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R824*	ERD25TJ333	33k ohm 1/4W ±5% Carbon	1				
R826*	ERM12PKR39	0.39 ohm 1/2W ±10% Wire	1				
R827*	ERD25TJ220	22 ohm 1/4W ±5% Carbon	1				
R828*	ERD25TJ222	2.2k ohm 1/4W ±5% Carbon	1				
R829*	ERD25TJ102	1k ohm 1/4W ±5% Carbon	1				
R830*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R831*	ERD25TJ683	68k ohm 1/4W ±5% Carbon	1				
R832*	ERD25TJ221	220 ohm 1/4W ±5% Carbon	1				
R833*	ERD25TJ101	100 ohm 1/4W ±5% Carbon	1				
R834*	ERG1ANJ330	33 ohm 1W ±5% Metal Film	1				
R901*	ERD25TJ103	10k ohm 1/4W ±5% Carbon	1				
R903*	ERG1ANJ221	220 ohm 1W ±5% Metal Film	1				
R904*	ERD25TJ682	6.8k ohm 1/4W ±5% Carbon	1				
R905*	ERD25TJ333	33k ohm 1/4W ±5% Carbon	1				
R906*	ERF5SJ391F	390 ohm 5W ±5% Wire	1				
R907*	ERD25TJ220	22 ohm 1/4W ±5% Wire	1				
R908*	ERD14FJ101	100 ohm 1/4W ±5% Wire	1				
R909*	ERG1ANJ470	47 ohm 1W ±5% Metal Film	1				
CAPACITORS							
C1	ECKD1H223PF	0.022mfd 50WV +100,-0% Ceramic	1				
C2	ECKD1H223PF	0.022mfd 50WV +100,-0% Ceramic	1				
C3	ECKD1H102PF	0.001mfd 50WV +100,-0% Ceramic	1				
C4*	ECKD1H472MD	0.0047mfd 50WV ±20% Ceramic	1				
C102*	ECCD1H101K	100pF 50WV ±10% Ceramic	1				
C103*	ECKD1H223PF	0.022mfd 50WV +100,-0% Ceramic	1				
C104*	ECKD1H223PF	0.022mfd 50WV +100,-0% Ceramic	1				
C105*	ECKD1H102MD	0.001mfd 50WV ±20% Ceramic	1				
C106*	ECCD1H100K	10pF 50WV ±10% Ceramic	1				
C107*	ECKD1H102PF	0.001mfd 50WV +100,-0% Ceramic	1				
C108*	ECCD1H220K	22pF 50WV ±10% Ceramic	1				

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
C109*	ECCD1H050C	5pF 50WV $\pm 0.25\text{pF}$ Ceramic	1				
C110*	ECCD1H040C	4pF 50WV $\pm 0.25\text{pF}$ Ceramic	1				
C111*	ECKD1H102MD	0.001mfd 50WV $\pm 20\%$ Ceramic	1				
C112*	ECCD1H100K	10pF 50WV $\pm 10\%$ Ceramic	1				
C113*	ECCD1H010C	1pF 50WV $\pm 0.25\text{pF}$ Ceramic	1				
C114*	ECKD1H100KV	10pF 50WV $\pm 10\%$ Ceramic	1				
C115*	ECKD1H070D	7pF 50WV $\pm 0.5\text{pF}$ Ceramic	1				
C116*	ECKD1H070D	7pF 50WV $\pm 0.5\text{pF}$ Ceramic	1				
C117*	ECKD1H223P	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C118*	ECKD1H223P	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C119*	ECCD1H120K	12pF 50WV $\pm 10\%$ Ceramic	1				
C201*	ECCD1H070D	7pF 50WV $\pm 0.5\text{pF}$ Ceramic	1				
C202*	ECQM1H473MZ	0.047mfd 125WV $\pm 20\%$ Polyester	1				
C203*	ECCD1H070D	7pF 50WV $\pm 0.5\text{pF}$ Ceramic	1				
C204*	ECCD1H270K	27pF 50WV $\pm 10\%$ Ceramic	1				
C205*	ECKD1H223MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C206*	ECKD1H223MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C207*	ECKD1H223PF	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C208*	ECKD1H223PF	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C209*	ECEA16V10	10mfd 16WV Electrolytic	1				
C210*	ECKD1H223PF	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C211*	ECEA16V10	10mfd 16WV Electrolytic	1				
C212*	ECEA35V4R7	4.7mfd 35WV Electrolytic	1				
C214*	ECKD1H103MD	0.01mfd 50WV $\pm 20\%$ Ceramic	1				
C215*	ECKD1H223PF	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C301*	ECKD1H223PF	0.002mfd 50WV $+100, -0\%$ Ceramic	1				
C302*	ECKD1H332MD	0.0033mfd 50WV $\pm 20\%$ Ceramic	1				
C303*	ECEA50V1	1mfd 50WV Electrolytic	1				
C304*	ECQM1H153KZ	0.015mfd 50WV $\pm 10\%$ Polyester	1				
C305*	ECEA16V33	33mfd 16WV Electrolytic	1				
C306*	ECEA10V100	100mfd 10WV Electrolytic	1				
C307*	ECEA16V33	33mfd 16WV Electrolytic	1				
C308*	ECKD1H103MD	0.01mfd 50WV $\pm 20\%$ Ceramic	1				
C309*	ECKD1H103MD	0.01mfd 50WV $\pm 20\%$ Ceramic	1				
C310*	ECEA16V220	220mfd 16WV Electrolytic	1				
C311*	ECKD1H223PF	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C312*	ECKD1H223PF	0.022mfd 50WV $+100, -0\%$ Ceramic	1				
C314*	ECKD1H222MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C315*	ECKD1H472MD	0.0047mfd 50WV $\pm 20\%$ Ceramic	1				
C316*	ECKD1H472MD	0.0047mfd 50WV $\pm 20\%$ Ceramic	1				
C401*	ECKD1H102MD	0.001mfd 50WV $\pm 20\%$ Ceramic	1				
C402*	ECKD1H102MD	0.001mfd 50WV $\pm 20\%$ Ceramic	1				
C403	ECSZ16EF4R7E	4.7mfd 16WV Tantalum	1				
C404	ECSZ16EF4R7E	4.7mfd 16WV Tantalum	1				
C405*	ECKD1H102MD	0.001mfd 50WV $\pm 20\%$ Ceramic	1				
C406*	ECKD1H102MD	0.001mfd 50WV $\pm 20\%$ Ceramic	1				
C407*	ECEA50V3R3	3.3mfd 50WV Electrolytic	1				
C408*	ECEA50V3R3	3.3mfd 50WV Electrolytic	1				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
C409*	ECCD1H050C	5pF 50WV $\pm 0.25\text{pF}$ Ceramic	1				
C410*	ECCD1H050C	5pF 50WV $\pm 0.25\text{pF}$ Ceramic	1				
C411*	ECCD1H330K	33pF 50WV $\pm 10\%$ Ceramic	1				
C412*	ECCD1H330K	33pF 50WV $\pm 10\%$ Ceramic	1				
C413*	ECKD1H222MD	0.0022mfd 50WV $\pm 20\%$ Ceramic	1				
C414*	ECKD1H222MD	0.0022mfd 50WV $\pm 20\%$ Ceramic	1				
C415*	ECKD1H103MD	0.01mfd 50WV $\pm 20\%$ Ceramic	1				
C416*	ECKD1H103MD	0.01mfd 50WV $\pm 20\%$ Ceramic	1				
C417*	ECKD1H152MD	0.0015mfd 50WV $\pm 20\%$ Ceramic	1				
C418*	ECKD1H152MD	0.0015mfd 50WV $\pm 20\%$ Ceramic	1				
C419*	ECEA16V33	33mfd 16WV Electrolytic	1				
C420*	ECEA16V33	33mfd 16WV Electrolytic	1				
C422*	ECEA16V47	47mfd 16WV Electrolytic	1				
C423*	ECEA25V100	100mfd 25WV Electrolytic	1				
C424*	ECEA25V100	100mfd 25WV Electrolytic	1				
C425*	ECKD1H682MD	0.0068mfd 50WV $\pm 20\%$ Ceramic	1				
C426*	ECKD1H682MD	0.0068mfd 50WV $\pm 20\%$ Ceramic	1				
C501*	ECKD1H333PF	0.033mfd 50WV $+100, -0\%$ Ceramic	1				
C502*	ECKD1H333PF	0.033mfd 50WV $+100, -0\%$ Ceramic	1				
C503*	ECKD1H471MD	470pF 50WV $\pm 20\%$ Ceramic	1				
C504*	ECKD1H471MD	470pF 50WV $\pm 20\%$ Ceramic	1				
C505*	ECEA50V1	1mfd 50WV Electrolytic	1				
C506*	ECEA50V1	1mfd 50WV Electrolytic	1				
C507*	ECKD1H223MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C508*	ECKD1H223MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C509*	ECCD1H560K	56pF 50WV $\pm 10\%$ Ceramic	1				
C510*	ECCD1H560K	56pF 50WV $\pm 10\%$ Ceramic	1				
C511*	ECEA25V33	33mfd 25WV Electrolytic	1				
C551	ECAG16ER1	1mfd 16WV Electrolytic	1				
C552	ECAG16ER1	1mfd 16WV Electrolytic	1				
C553	ECAG16ER47	47mfd 16WV Electrolytic	1				
C554	ECAG16ER47	47mfd 16WV Electrolytic	1				
C555*	ECEA16V33	33mfd 16WV Electrolytic	1				
C556*	ECEA16V33	33mfd 16WV Electrolytic	1				
C557*	ECKD1H223MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C558*	ECKD1H223MD	0.022mfd 50WV $\pm 20\%$ Ceramic	1				
C559	ECAG16ER1	1mfd 16WV $\pm 20\%$ Ceramic	1				
C560	ECAG16ER1	1mfd 16WV $\pm 20\%$ Ceramic	1				
C601	ECAG16E1	1mfd 16WV Electrolytic	1				
C602	ECAG16E1	1mfd 16WV Electrolytic	1				
C603*	ECKD1H102PF	0.001mfd 50WV $+100, -0\%$ Ceramic	1				
C604*	ECKD1H102PF	0.001mfd 50WV $+100, -0\%$ Ceramic	1				
C605*	ECKD1H153MD	0.015mfd 50WV $\pm 20\%$ Ceramic	1				
C606*	ECKD1H153MD	0.015mfd 50WV $\pm 20\%$ Ceramic	1				
C607*	ECKD1H333MD	0.033mfd 50WV $\pm 20\%$ Ceramic	1				
C608*	ECKD1H333MD	0.033mfd 50WV $\pm 20\%$ Ceramic	1				
C609*	ECKD1H333PF	0.033mfd 50WV $+100, -0\%$ Ceramic	1				
C610	ECKD1H333PF	0.033mfd 50WV $+100, -0\%$ Ceramic	1				

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
C611*	ECEA35V4R7	4.7mfd 35WV Electrolytic	1				
C701*	ECEA50V1	1mfd 50WV Electrolytic	1				
C702*	ECEA50V1	1mfd 50WV Electrolytic	1				
C703*	ECCD1H331K	330pF 50WV ±10% Ceramic	1				
C704*	ECCD1H331K	330pF 50WV ±10% Ceramic	1				
C705*	ECEA16V47	47mfd 16WV Electrolytic	1				
C706*	ECEA16V47	47mfd 16WV Electrolytic	1				
C707*	ECEA16V47	47mfd 16WV Electrolytic	1				
C708*	ECEA16V47	47mfd 16WV Electrolytic	1				
C709*	ECEA35V470	470mfd 35WV Electrolytic	1				
C710*	ECEA35V470	470mfd 35WV Electrolytic	1				
C711*	ECQM1H473MZ	0.047mfd 125WV ±20% Polyester	1				
C712*	ECQM1H473MZ	0.047mfd 125WV ±20% Polyester	1				
C713*	ECEA50V100	100mfd 50WV Electrolytic	1				
C714*	ECEA50V4R7	4.7mfd 50WV Electrolytic	1				
C715	ECKD1H223PF	0.022mfd 50WV +100, -0% Ceramic	1				
C801*	ECQS1221JZ	220pF 100WV ±5% Styrol	1				
C802*	ECQS1221JZ	220pF 100WV ±5% Styrol	1				
C803	ECQS1152JZ	1500pF 1WV ±5% Styrol	1				
C804	ECQS1152JZ	1500pF 1WV ±5% Styrol	1				
C805*	ECCD1H331K	330pF 50WV ±10% Ceramic	1				
C806*	ECCD1H331K	330pF 50WV ±10% Ceramic	1				
C807*	ECKD1H471MD	470pF 50WV ±20% Ceramic	1				
C808*	ECKD1H471MD	470pF 50WV ±20% Ceramic	1				
C811*	ECKD1H103MD	0.01mfd 50WV ±20% Ceramic	1				
C812*	ECKD1H103MD	0.01mfd 50WV ±20% Ceramic	1				
C813*	ECEA50V1	1mfd 50WV Electrolytic	1				
C814	ECEA50V1	1mfd 50WV Electrolytic	1				
C815*	ECEA16V33	33mfd 16WV Electrolytic	1				
C816*	ECEA16V33	33mfd 16WV Electrolytic	1				
C817*	ECEA16V47	47mfd 16WV Electrolytic	1				
C818*	ECKD1H223PF	0.022mfd 50WV +100, -0% Ceramic	1				
C819*	ECEA50V3R3	3.3mfd 50WV Electrolytic	1				
C820*	ECQM1H333MZ	0.033mfd 125WV ±20% Polyester	1				
C821*	ECQM1H104MZ	0.1mfd 125WV ±20% Polyester	1				
C822	ECAG16ER1	0.1mfd 16WV Electrolytic	1				
C823	ECQS1182JZ	1800pF 100WV ±5% Styrol	1				
C824	ECAG16ER1	0.1mfd 16WV Electrolytic	1				
C825*	ECEA16V47	47mfd 16WV Electrolytic	1				
C826*	ECEA25V220	220mfd 25WV Electrolytic	1				
C827*	ECEA25V220	220mfd 25WV Electrolytic	1				
C828*	ECEA50V1	1mfd 50WV Electrolytic	1				
C829*	ECCD1H271K	270pF 50WV ±10% Ceramic	1				
C830*	ECCD1H271K	270pF 50WV ±10% Ceramic	1				
C831*	ECCD1H181K	180pF 50WV ±10% Ceramic	1				
C832*	ECCD1H181K	180pF 50WV ±10% Ceramic	1				
C833*	ECKD1H102PF	0.001mfd 50WV +100, -0% Ceramic	1				
C901	ECKDD5101MB	100pf 250WV ±20% Ceramic	1				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
C902	ECKD3L103PE6	0.01mfd 250WV ±20% Ceramic	1				
C904	ECET35R222SU	2200mfd 35WV Electrolytic	1				
C905*	ECEA25V2200	2200mfd 25WV Electrolytic	1				
C906*	ECKD1H103PF	0.01mfd 50WV +100, -0% Ceramic	1				
C907*	ECEA25V220	220mfd 25WV Electrolytic	1				
C908*	ECEA16V220	220mfd 16WV Electrolytic	1				
VARIABLE RESISTORS							
VR501,502	EWFN3AK30AF5	Variable Resistor, Volume Control, 250kA	1	○			
VR503	EVH5SA363G55	Variable Resistor, Balance Control, 500kG	1	○			
VR551~554	EWK8EA331C24	Variable Resistor, Bass and Treble Control, 20kC	2				
VR301*	EVLTOAA00B14	Semi-fixed V.R. Separation Control, 10kB	1				
VR401,402	EVH4SA363A53	Variable Resistor, REC Volume Control	1	○			
VR801	EVL33AA00B13	Semi-fixed V.R., Bias Oscillator Adjust, 1kB	1				
VARIABLE CAPACITORS							
CT101,102	ECV5MX25X22G ECV1ZW10X32	Tuning Capacitor	1				
201,202		Trimmer Capacitor	1				
CT103							
SWITCHES							
S1	ESB7042T	Push Switch, Power ON-OFF	1				
S2,3	SSH202	Push Switch, Speaker Selector and Loudness	2				
S4	—	Refer to Ref. No. 19 on page 21. (Phonomotor ON-OFF)	1				
S5,6	SSH206	Push Switch, Tape Selector and Recording Mode	2				
S7	—	Refer to Ref. No. 49 on page 23. (Tape Muting)	1				

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
S8	—	Refer to Ref. No. 26 on page 23. (Tape Motor)	1				
S9	SSH50	Push Switch, AFC	1				
S10	ESE3744	Switch, Voltage Selector	1				
SF1~4	SSR68K	Rotary Switch, Function Selector	1				
ST1~9	SSH36	Slide Switch, R/P	1				
CHASSIS							
CH1	SMZ6046-2	Rubber Cushion, Light Shield	1				
CH2	SDP176	Pointer Assembly, Dial	1	○			
CH3	SDH178-1	Reflector	1				
CH4	RDD382YA	Drum, Dial	1				
CH5	RDS4090A	Spring, Drum	1				
CH6	RDR23	Pulley, Dial	4				
CH7	RDY36	Shaft, Pulley	5				
CH9	RDR20	Pulley, Dial	1				
CH10	RNW150-2	Washer, Pulley	5				
CH11	RDZ05-A	Cord, Dial	170cm				
CH12	RHR969ZA	Latch	5				
CH13	SDT9304	Tuning Shaft Assembly	1	○			
CH14	SUS184	Spring, Push Button	5				
CH15	SHG9100	Rubber Cushion, Lamp	2	○			
CH16	SHR102	Strain Relief, Power Cord	1				
CH17*	RJA48Z-F	Power Cord	1				
CH18	SJJ84	Jack, Headphone	1				
CH19	SJF106-1	Lamp Holder, 1P	1				
CH20	SJP128ZA	Connector Assembly, Changer	1				
CH21	SWP70	Lead Assembly, Phono	1				
CH22	XTW3+10B	Screw, Rear and Bottom Board Mounting	7				
CH23	SUS206	Spring, Pointer Lead	1				
CH24	XTV3+8B	Screw, Escutcheon 8-Track Deck	8				
CH25	XSB4+16BVCS	Screw, Cabinet Mounting	4				
CH26	XWE5X12BV-C	Washer, Cabinet Mounting	4				
CH30	SJF4404	Terminal Board, ANT	1				
CH31	SJF3404	Jack Board	2				
CH32	RJH87YA-C	Jack, Microphone	1	○			
CH33 (MC-1)	SWK176	Connector Assembly, 5P	1				
CH34 (MC-2)	SWK174	Connector Assembly, 3P	1				
CH35	SXE98	Eject Arm Assembly	1				
CH36	SUS180	Spring, Eject Arm	1				
CH37	XYN26+C8	Screw, Cassette Panel Mounting	2				
CH40	SMN812	Bracket, Meter	1	○			

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
CH41	SJF104	Fuse Holder	1				
CH42	SJR502	Terminal Board	1				
CH43	SJF3408	Jack Board, SPKR	1				
ACCESSORIES							
A1	SQX5786	Instruction Book	1	○			
A2	SJM114	Microphone	1				
A3	WN133	Microphone Stand	1				
A4*	QFT1CCRRJZ	Demonstration Tape	1				
PACKING							
PA1	SPG1800	Carton, Outer (for Far East only)	1	○			
	SPG1802	Carton, Outer (for Europe only)	1	○			
PA2	SPN2608	Carton, Inner	1	○			
PA3	SPN2610	Pad, Upper	1	○			
PA4	SPN2612	Pad, Dust Cover	1	○			
PA5	SPN2614	Pad, Front	1	○			
PA6	SPN2616	Pad, Bottom	1	○			
PA7	SPN2520	Pad, Center Unit (R)	1				
PA8	SPN2522	Pad, Center Unit (L)	1				
PA9	SPN2232	Pad, Changer	1				
CABINET							
CA1	SKA1862	Cabinet Assembly	1	○			
CA1-1	SHG9058	Rubber Cushion, Dust Cover	2				
CA1-2	SBH2502	Holder, Hinge	2				
CA2	SYU296	Bottom Board Assembly	1				
CA3	SKU2621	Rear Board, for Europe	1	○			
CA3	SKU2622	Rear Board, for Far East	1	○			
CA4	SYL6-1	Foot Assembly	4				
CA5	SYF278	Escutcheon Assembly	1	○			
CA5-1	SGE666	Tinted Glass	1	○			
CA5-2	SUE-2	Transparent Plate	1				
CA5-3	SGX982	Ornament, (L)	1				
CA5-4	SGX984	Ornament, (R)	1				
CA5-5	SHR9032	Plastic Shield	1				
CA5-6	SGX986	Trim, Button	6				
CA5-7	RGB221ZA	Badge, Panasonic	1				
CA5-8	SGE670	Front Cover, Cassette	1	○			

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
CA6	SKD3680	Dial	1	○			
CA7	SBN704	Knob, Tuning	1				
CA8	SBN622K	Knob, Volume Control and Others	5				
CA9	SBC208	Push Button	5				
CA10	SBC212	Push Button, Power	1				
CA11	SBC158-1	Button, Reset	1				
CA12	SUW932-1	Bracket, Reset Button	1				
CA13	SBN706K	Knob, REC	2	○			
CA14	SYE460	Cassette Panel Assembly	1	○			
CA14-1	SGE468	Transparent Cover	1				
CA14-2	SGX928	Trim, Counter	1				
CA15	SXE108	Hook Assembly	1	○			
CA16	SYE394	Cassette Lid Assembly	1				
CA17	SGE690	Dust Cover	1	○			
SPEAKER SYSTEM (SB-3057)							
	SKA663	Speaker Enclosure	2				
	SGW2500	Grill	2				
	SKU1060-1	Rear Board	2				
	EAS20PL59S	Woofer, 20 cm, 8 ohms	2				
	EAS5PH50S	Tweeter, 5 cm, 8 ohms	2				
	SGN1260	Name Plate	2				
	SGB321	Badge	2				
	XNK2W	Speed Nut, Badge	2				
	ECEA50Y1	Electrolytic Capacitor 1 mfd	2				
	SJR302	Terminal Board	2				
	SPN1572	Carton, Speaker System	1				
	SPN1602	Pad, Bottom and Upper	2				
	SPN1574	Pad	2				
	SPN1576	Pad, Center	1				
	SJP2110	Speaker Cord	2				
RECORD CHANGER C-141R1-A-6-ZC4285/517							
1	A101506	Thrust Washer					
2	A101649	Ball Race					
3	A102058	Damping Washer					
4	A106089	Spring Cup					
5	A106090	Unit Mounting Spring					

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
6	A102109	Circlip					
7	A102595	Washer					
8	A104189	Transit Screw					
9	B108656	Main Plate Sub-Assembly					
10	A102166	Retaining Clip					
11	A106510	Screw type B No.6 × 1/4" rec. Pan Hd.					
12	A102126	Solder Lug					
13	A106206	Mounting Strip					
14	A108589	Raising Spindle					
15	B110364	Raising Cam					
16	B106021	Speed Change Arm					
17	A105831	Raising Spindle Spring					
18	A106034	Speed Change Bracket					
	A106015	Retaining Strip Solder Tag Switch Dolly Flat Contact					
19	B108285	Switch Ass'y (S4) Domed Contact Switch Cover Switch Cover					
20	A107418	Screw type BT 4-24 × 3/4" rec. Pan Hd.					
21	A105163	Screw type BT 6-20 × 3/8" rec. Pan Hd.					
22	A102718	Cable Clamp					
23	A106513	3" — 5 mm P.V.C. Sleeving					
24	A106749	4 B.A. Tag Lockwasher					
25	B111553	Molex Connector					
28	A102181	Rubber mounting					
29	A101646	Motor Mounting Washer					
30	A100762	Circlip					
31	A102128	Circlip					
32	A105619	Adjusting Screw					
33	A105965	Jockey Arm Riveting Assembly					
34	A105824	Jockey Pulley Spring					
35	A101620	J.P. Spindle Washer					
36	A101623	Jockey Pulley Assembly					
37		Not used					
38	B108824	Phono Socket					
39	A106819	Actuating Pawl Assembly					
40	A102133	Cam Gear Riveting Assembly					
41	A108034	Cut-Off Slide					
42	A108083	Cut-Off Slide Spring					
43	A110609	Screw No. 8 × 1/2" Hi-Lo rec. Pan Hd.					
44	A108401	7" — 3 mm P.V.C. Sleeving					

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REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks		
45	C108104	Main Sub Plate				
		Riveting Assembly				
46	A105678	Circlip				
47	A110985	Control Spindle Spring				
48	A104861	Spacer				
49	A106512	Screw type BT				
		4-24 x 5/8" rec. Pan Hd.				
50	A108654	Spring Clip				
51	A105901	Actuating Slide Spring				
52	A107419	Ball Bearing 9/64" Dia.				
53	A106980	Operating Plate Spring				
54	A103290	Washer				
55	A108077	Spring				
56	A100785	Circlip				
57	A108078	Selector Drive Spring				
58	B105597	Feed Lever Link				
59	A105827	Link Return Spring				
60	A106978	Feed Lever Link Spring				
61	B108168	Operating Plate Assembly				
63	FP20/4	Four Pole Motor Assembly				
64	A104077	Circlip				
65	A106966	Washer				
66	B106962	Actuating Slide				
67	B108073	Toggle Wheel				
68	A108334	Circlip				
69	A106697	P.U. Raising Spindle Assembly				
70	A107004	Support Spring				
71	A106965	Support Bracket				
72	A107154	Ball Bearing 3/32" Dia.				
73	B108085	Quadrant Assembly				
74	A104882	Retaining Clip				
75	A101526	Circlip				
76	A102251	Retainer				
77	A102623	Cut-Off Lever Spring				
78	B105592	Cut-Off Lever				
79	B108036	Selector Lever				
80	A108893	Washer				
81	A105660	Control Washer				
82	A106627	Detent Spring				
83	A106134	Reject Link				
84	A108283	Reject Lever Assembly				
85	A108075	Detent Plate Spring				
86	A108894	Selector Pivot				
87	A108033	Detent Plate				
88	A106193	Reject Plate Assembly				
89	A105267	Screw type BT				
		4-24 x 5/16" rec. Pan Hd.				
90	B106119	Reject Slide				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks		
91	B106143	Selector Slide				
92	A108461	Roller				
93	A108064	Slide Pin				
94	A106129	Switch Lever				
95	A107863	Screw type BT				
		4-24 x 9/16" rec. Pan Hd.				
96	A106816	Washer				
97	B106405	Switch Link				
98	B106815	Spring Anchor				
99	A106812	Anti-Skate Spring				
100	A105826	Switch Lever Spring				
101	A102110	Circlip				
102	B108113	Speed Change Slide Assembly				
103	A106813	Anti-Skate Control Spring				
104	B106122	Knob				
105	B110426	Selector Knob				
106	A108891	Selector Pivot Spring				
108	A110606	Motor Pulley Assembly (60 Hz)				
	A110605	Motor Pulley Assembly (50 Hz)				
109	B108629	Anti-Skate Control				
110	D111169	Escutcheon				
111	A108410	Spring				
115	A106663	P.U. Rest				
116	A106173	P.U. Rest Spring				
117	A106664	P.U. Clip				
118	A110454	Raising Pad				
119	A106505	Crub Screw				
		6 B.A. x 1/8" Pnted				
120	A105907	Nut				
121	A105712	Adjusting Screw				
122	A106047	Locking Sleeve				
123	A106917	Screw type				
		6 B.A. x 3/8" Std. Ch. Hd.				
124	A106654	P.U. Adjuster				
125	A105669	P.U. Balance Spring				
127	A108384	Hinge Bracket Riveting Assembly				
128	A106205	Circlip				
129	A108381	P.U. Pivot				
130	A108382	Hinge Retainer Spring				
131	A105624	P.U. Spindle Nut				
132	A106745	20" Quin P.U. Lead				
133	A109551	Screw type A				
		No. 4 x 1/4" rec. Pan Hd.				
134	A106504	6 B.A. External Lock Washer				
135	A110574	P.U. Arm Body Sub Assembly				
136	A106652	P.U. Pivot Screw				
137	A108348	Circlip				
138	A108344	Balance Adjusting Screw				

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
139	B110417	Balance Adjuster					
140	C110397	P.U. Head					
143	A106506	Screw 6 B.A. x 3/16" rec. c'sunk Hd.					
144	A110449	P.U. Head Trim					
145	C110397	Pick-Up Head					
146	B111172	P.U. Tube					
147	A111159	Counterweight					
149	B111189	Control Arm Assembly					
150	A108827	Screw type B No.2 x 1/2" rec. c'sunk Hd.					
151	A108841	Circlip					
152	A107043	Centre Spindle Assembly					
153	A108748	Stub Spindle					
154	A106024	T.T. Centre Disc					
155	SGX678	T.T. Trim					
156	C109261	T.T. Mat					
157	C106194	Turntable Assembly					
158	A106507	Screw type B.T. 6-20 x 3/4" rec. Pan Hed.					
160	A110908	Retainer					
161	A110451	Raising Arm					
162	A110381	Knob					
163	A110408	Cap					
164	A110895	Circlip					
165	A108746	Adjusting Screw Assembly					
166	A108408	Cylinder					
167	A108415	Spring					
168	A110423	Raising Slide Assembly					
169	A110454	Raising Platform					
170	A111174	Speed Change Trim					
171	A111173	Control Trim					
172	A111176	Trim					
	PS899	45 RPM Adaptor					
173	A106775	Cartridge Adaptor					
174	EPC82SMBD	Cartridge					
174-1	EPS31STSD	Stylus					
	PS952	50 Hz Adaptor Kit					
175	XSN23+10FN	Screw, Cartridge Mounting					
CASSETTE TAPE DECK (SJD74)							
1	SBC200	Push Button	7				
3	SMQ1232	REC Safety Lever	1				

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
4	SMQ662	Spring, REC Safety Lever	1				
5	SNE432	Circlip, REC Safety Lever	1				
6	SJH30	R/P Head	1				
7	SJH14	Erase Head	1				
8	SMQ678	Spring, R/P Head and Flywheel Bracket	2				
9	SMQ1360	Spring A, Head Panel	2				
10	SMQ1362-1	Head Base	1				
11	SMQ1388	Eject Stop Lever w/Spring	1				
12	SMQ1390	Auto-Stop Lever Assembly	1				
13	SMQ1392	Spacer, Auto-Stop Lever	1				
14	SMQ1364	Pressure Roller Assembly	1				
15	SMQ1366	Spring, Pressure Roller	1				
16	SMQ1626	Reel Assembly	2				
17	SMQ1344	Tape Counter	1				
18	SMQ1056	Counter Belt	1				
19	SMQ1354	Brake Arm	1				
20	SMQ1358	Spring, Brake Arm	1				
21	SMQ1394	Spring, Tape Holder	1				
22	MHT5PS	Motor	1				
23	SMQ1384	Motor Pulley w/Screw (XXA2A-3)	1				
24	SMQ716	Rubber Cushion, Motor	3				
25	SMQ718	Spacer, Motor	3				
26	SMQ1378	Motor ON-OFF Switch (S8)	1				
27	SMQ1396	Eject Slide Lever w/Spring	1				
28	SMQ1374	Spacer A, Eject Slide Lever	1				
29	SMQ1398	Spacer B, Eject Slide Lever	1				
30	SMQ1368	Clutch Assembly w/Spring	1				
31	SMQ1370-1	Bearing	1				
33	SMQ148	Washer, Oil Thrower	2				
34	SMQ1402	Nylon Washer	1				
35	SMQ686	Flywheel	1				
36	SMQ1372	Main Belt	1				
37	SMQ1404	Flywheel Bracket	1				
38	SMQ1382-1	FF Arm Assembly w/Spring	1				
39	SMQ1406	Brake Operating Plate	1				
40	SMQ1408	Rewind Arm w/Spring	1				
41	SMQ1386	Rewind Idler	1				
42	SMQ1410	Pause Lever	1				
43	SMQ1412	Spacer, Pause Lever	1				
44	SMQ1414	Pause Slide Lever A w/Spring	1				
45	SMQ1416	Pause Slide Lever B	1				
46	SMQ1376	Pause Click Lever	1				
47	SMQ1418	Spring, Pause Click Lever	1				
48	SMQ1640	Bracket, Switch	1			○	
49	SMQ1642	Switch, Muting (S7)	1			○	
50	SMQ1422	REC Slide Lever	1				
51	SUS178-1	Spring Plate, REC Switch	1				
52	SMQ1426	Spacer, REC Slide Lever	1				

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SE-2657

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Description	Per Set (pcs.)	Remarks			
54	SMQ1430	Rewind Lever	1				
55	SMQ1432	FF Lever	1				
56	SMQ1434	Nylon Washer 6.1φ	1				
57	SMQ1436-1	Kick Lever, Auto-Stop	1				
58	SMQ1438	Spacer, Kick Lever	1				
59	SMQ1530	Play Lever	1				
60	SMQ1524	Spacer, Play Lever	1				
61	SMQ1444	Spring B, Head Panel	1				
62	SMQ1580	Push Button Frame Assembly	1				
100	XYN2+C5	Screw 2 mm × 5	3				
101	XSN2+8	Screw 2 mm × 8, Muting Switch	1				
102	XSS2+5	Screw 2 mm × 5	1				
103	XSN2+10	Screw 2 mm × 10	3				
104	XYN26+C5	Screw 2.6 mm × 5	5				
105	XSN26+6	Screw 2.6 mm × 6	5				
106	XSB26+4	Screw 2.6 mm × 4, Head Panel	1				
107	XSB26+6	Screw 2.6 mm × 6, Head Panel	1				
108	XSN26+10	Screw 2.6 mm × 10	1				
109	XSS3+5S	Screw 3 mm × 5, Counter Mounting	2				
111	XSN2D6	Screw 2mm × 6	1				
112	XWE2A6	Washer 2φ	3				
113	XWE26D7	Washer 2.6φ, 0.5t	5				
115	XYN26+C6	Screw 2.6 mm × 6, Play Lever	3				
150	XUC12FT	Circlip 1.2φ	2				
151	XUC15FT	Circlip 1.5φ	4				
152	XUCS19	Circlip 1.9φ	1				
153	XUC2FT	Circlip 2φ	2				
155	XUC25FT	Circlip 2.5φ	1				
156	XUC32FT	Circlip 3.2φ	1				
157	XUC4FT	Circlip 4φ	2				

Service Manual

**FM/AM/FM STEREO RADIO AND CASSETTE
RECORDER WITH RECORD CHANGER**

**Compact Stereo
SE-2657**

Supplement-2

- ★ This service manual includes only the additional information for the original service manual of model SE-2657 (ORDER NO. TSD-7606-591).
- ★ This supplementary issue should be filed with the original service manual.
- ★ When servicing model SE-2657, this supplementary issue and the original one should be referred.

PARTS MODIFICATIONS

■ MODEL NO.

SE-2657 → SE-2657A

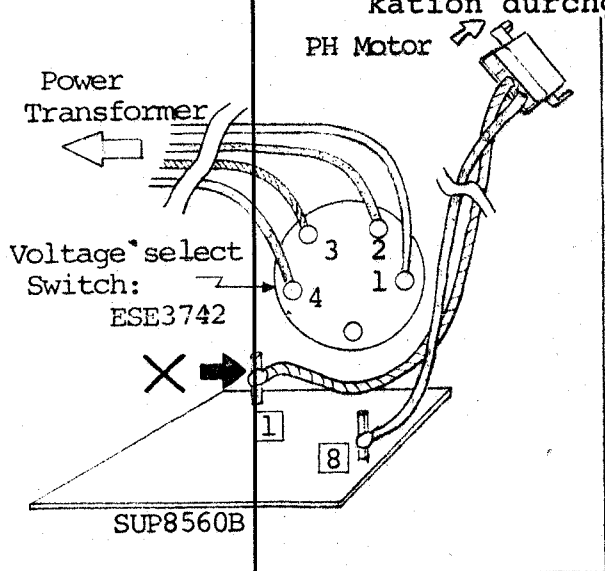
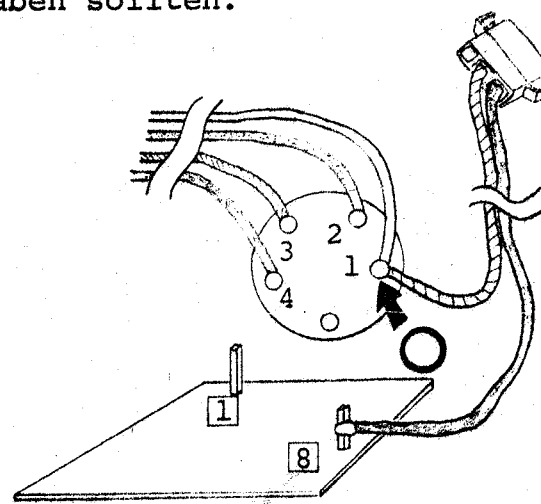
■ REPLACEMENT PARTS LIST

Ref. No.	Part No.		Description	Per set	Remarks
	Original S/M	➡ New			
ACCESSORIES					
A1	SQX5786	SQX5786-1	Instruction Book	1	○
PACKING					
PA2	SPN2608	SPN2608-1	Carton, Inner	1	○
CABINET					
CA3	SKU2621	SKU2624	Rear Board (for Europe)	1	○
CA3	SKU2622	SKU2625	Rear Board (for Far East)	1	○
CA5	SYP278	SYP318	Escutcheon Assembly	1	○
SPEAKER SYSTEM (SB-3057) ➡ (SB-257)					
	SKA663	SKA2180	Speaker Box	2	○
	SGW2500	SYB190	Baffle Ass'y	2	○
	SKU1060-1	SKU3040	Rear Cover	2	○
	EAS20PL59S	SGB321	Badge	2	
	EAS5PH50S	EAS16P33GG	Speaker	2	
	SGN1260	EAS16PY122S	Drone Corn, Speaker	2	○
	SGB321	SJP2120	Speaker Cord	2	○
	XNK2W	SGN3320	Name Plate	2	○
	ECEA50Y1	RJF3109	Terminal, RCA	2	○
	SJR302				
	SPN1572	SPN2872	Carton, Inner	1	○
	SPN1602	SPN2876	Pad, Upper	2	○
	SPN1574	SPN2878	Pad, Center	1	○
	SPN1576				
	SJP2110				

Panasonic®

Matsushita Electric Industrial Co., Ltd.
1-2, 1-chome, Shiba-Koen, Minato-ku, Tokyo 105, Japan

An alle Kundendienst-Zentralen
und NPS-Filialen

Nr.: 83	Datum: 7. Mai 1980 EK/GS
THEMA	TEXT
SE-3007 Sicherung F 902 brennt durch bei der ersten Inbetriebnahme	Unser Außendienst-Techniker, Herr Iqbal aus Düsseldorf, machte uns auf folgenden Fehler aufmerksam: Vom SE-3007 sind einige Geräte ausgeliefert worden, bei denen im Netzteil ein Schaltfehler vorliegt. Der Netztrafo erhält auf der 110 V-Anzapfung durch diesen Fehler 220 V. Dadurch brennt die 1 A-Sicherung und u.U. auch der Phonomotor durch. Sollte in Ihrer Werkstatt ein solches Gerät mit dem genannten Fehler eingehen, so nehmen Sie bitte die Änderung (Bild) vor und ersetzen außerdem die Sicherung und den Phonomotor. Wir bitten um Mitteilung, wenn Sie diese Modifikation durchgeführt haben sollten.  correct error  NPS HH E. Koitz i.A. <i>Reichmann</i>

Service Manual

FM/AM/FM/ STEREO RADIO WITH CASSETTE
PLAYER/RECORDER AND RECORD CHANGER

Compact Stereo
SE-2657

Supplementary-1

- ★ This service manual includes only the additional information for the original service manual of model SE-2657 (ORDER NO. TSD-7606-591).
- ★ This supplementary issue should be filed with the original service manual.
- ★ When servicing model SE2657, this supplementary and the original one should be referred.

PARTS MODIFICATIONS

The following replacement parts of model SE-2657 is changed to improve the performance.

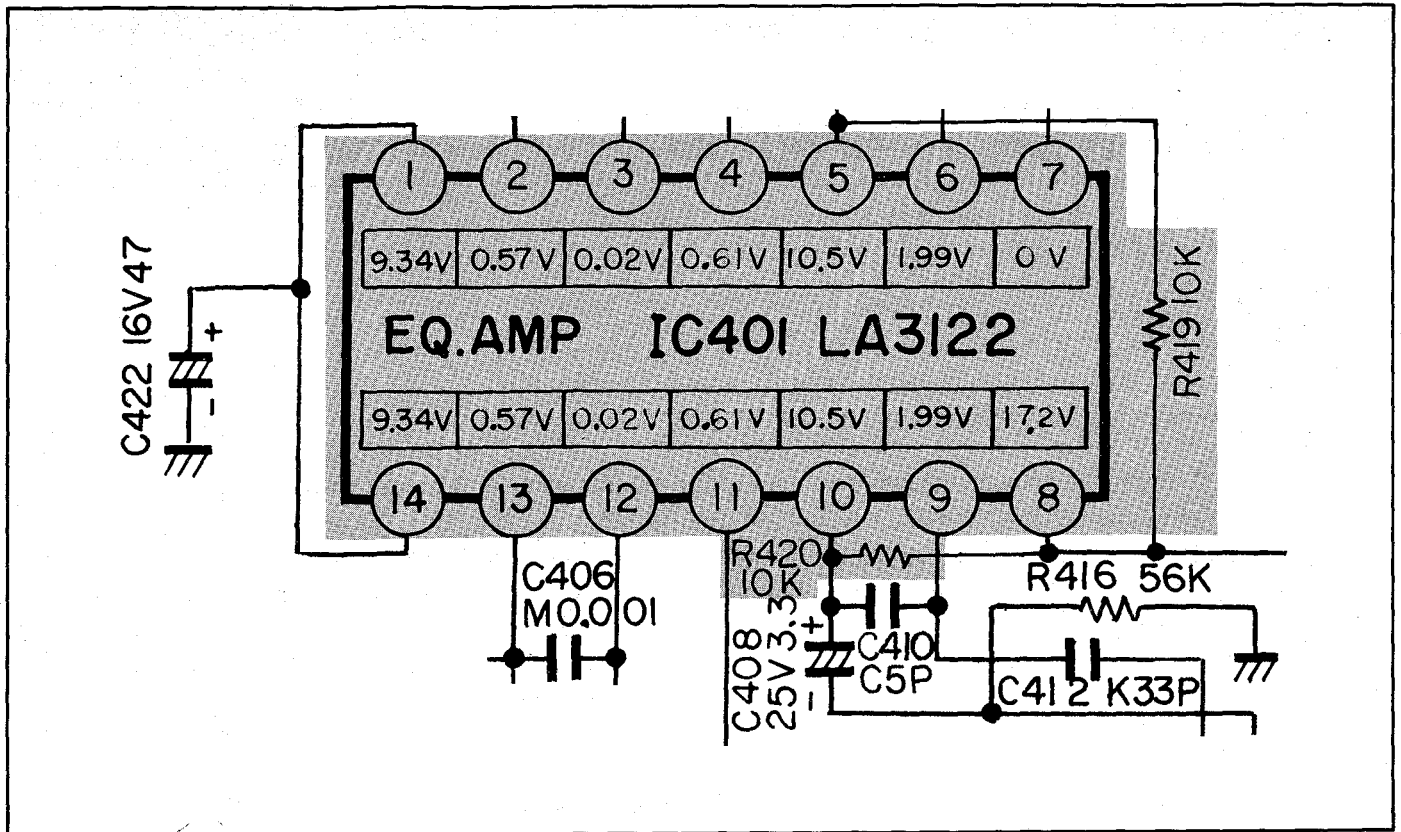
Ref. No.	Part No.		Description	Remarks
	Original S/M	New		
INTEGRATED CIRCUIT AND TRANSISTOR				
IC401 TR401~406	LA3122	 2SC1327	 Transistor, Equalizer Amplifier	
RESISTORS				
R419, 420	ERD25TJ103			
R441, 442		ERD25TJ104	100k ohm 1/4W ±5% Carbon	
R443, 444		ERD25TJ391	390 ohm 1/4W ±5% Carbon	
R445, 446		ERD25TJ124	120k ohm 1/4W ±5% Carbon	
R447, 448		ERD25TJ822	8.2k ohm 1/4W ±5% Carbon	
R449, 450		ERD25TJ332	3.3k ohm 1/4W ±5% Carbon	
R451, 452		ERD25TJ331	330 ohm 1/4W ±5% Carbon	

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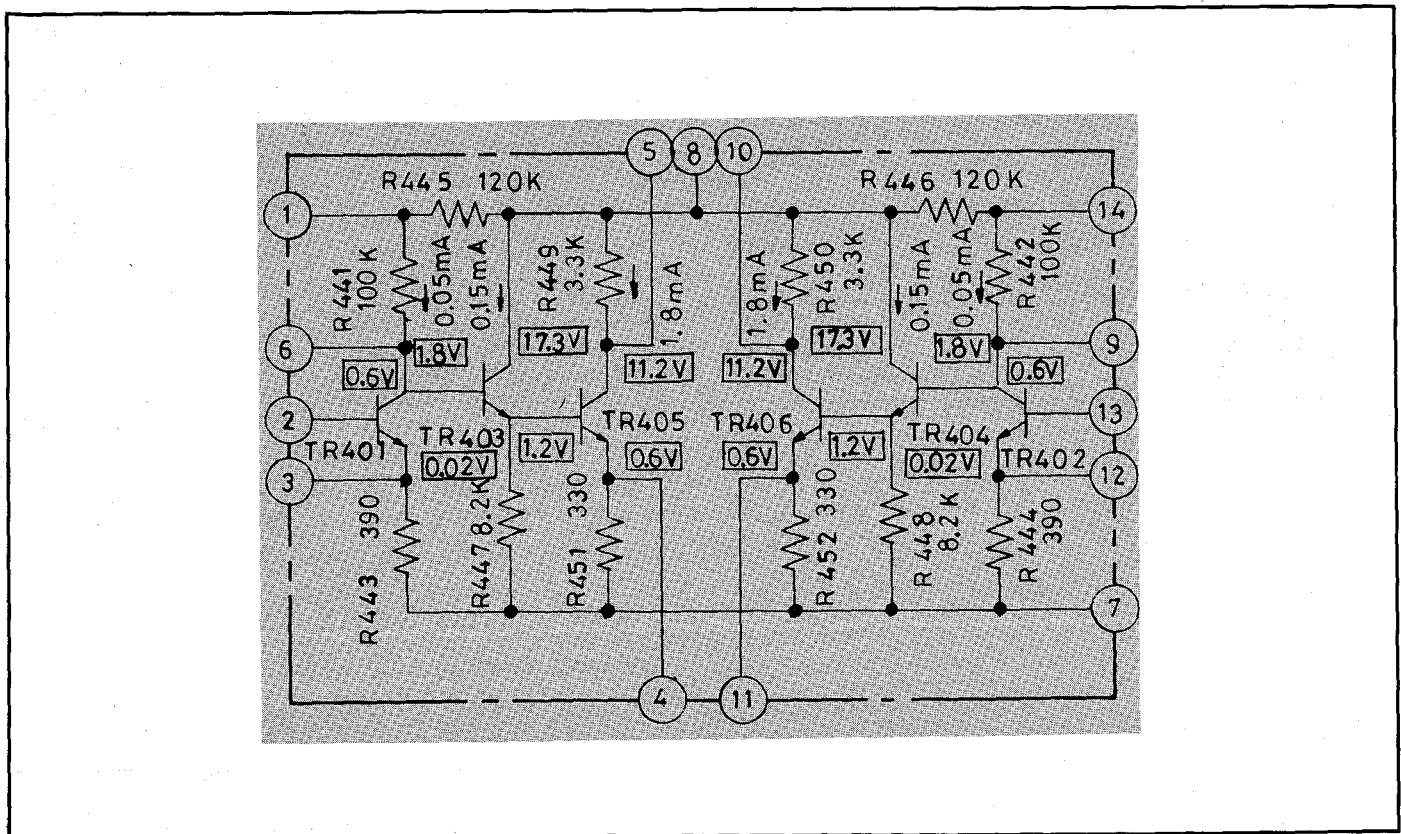
Matsushita Electric Industrial Co., Ltd.
1-2, 1-chome, Shiba-Koen, Minato-ku, Tokyo 105, Japan

SCHEMATIC DIAGRAM

ORIGINAL S/M

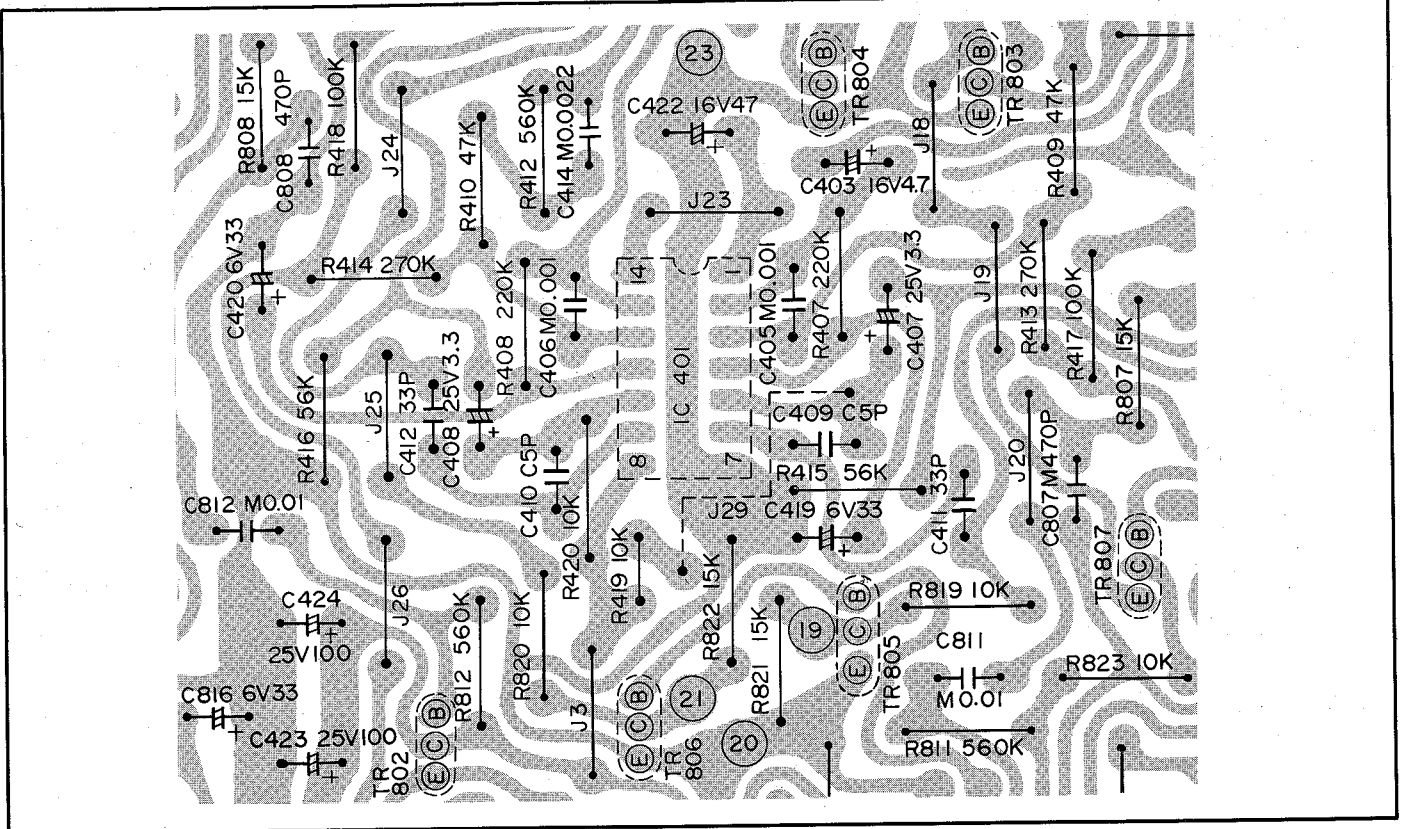


NEW



WIRING DIAGRAM

ORIGINAL S/M



NEW

